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THE DIETITIAN IN STATE INSTITUTIONS

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THE Bureau of Institutional Management in the Department of Welfare, Commonwealth of Pennsylvania, was organized July, 1933, as a result of a study and recommendations of an Administrative Committee on Business Methods. The bureau's staff includes a consulting architect, engineer, agriculturist, nurse, and dietitian or nutritionist. The latter position has been held by the writer since March, 1933. The leadership and understanding of the bureau director and the keen interest of members of the staff in their own specialties, insures a spirit of service within the bureau. The bureau director is responsible to the secretary of welfare.

The general policy and objectives of the Bureau of Institutional Management are:

> To develop, adjust and carry out policies of procedure for certain institution activities in the best interests of the institutions, the Department of Welfare and other departments and agencies.
>
> To develop and maintain cordial relations with and between institutions, administrators and activity heads; and to give prompt, efficient and sympathetic consideration to requests or problems.
>
> To serve state institutions within the Department of Welfare to the end that they in turn may better meet their responsibilities to the patients or inmates committed to their care, with special reference to architecture; general maintenance of buildings; heat, water, light, sewage, refrigeration, fire protection; laundry planning, service, supplies; food program, planning, purchase, preparation and service; nursing service and training; general hospital administration; and farm management.

A close relationship is maintained with the Bureau of Mental Health which supervises the care of patients in the eight mental hospitals and four institutions for mental defectives; also with the Bureau of Corrections which supervises the six penal and correctional institutions. The ten medical and surgical hospitals come almost entirely under the supervision of the Bureau of Institutional Management.

A close affiiliation is also maintained with the Accounting Division within the Department of Welfare. This division has direct control of budgets and expenditures of the institutions. All

appointments within the institutions pass through the Department of Welfare, first through the Accounting Division to check on the salary, and where qualifications are also verified, with the exception of the key positions which are evaluated and checked by those of the staff best qualified as judges. Many of these problems come to the Bureau of Institutional Management.

Certain minimum qualifications for positions are set up in a personnel manual, but since a period of about twelve years has elapsed since it has been revised, the manual does not always meet the needs of the institutions. Therefore the Department of Welfare has required either additional training or experience, or both, for certain positions. In the case of the dietary departments within the institutions, there are three classifications. For that of "Dietitian A," which covers the head position in all large institutions such as mental hospitals and schools for mental defectives, the applicant is expected to have a B.S. degree in foods and nutrition or institution management; to have completed a year of hospital training; and to have had several years experience in institution work. "Dietitian B" is the classification the applicant usually must meet in order to qualify for a position in the smaller hospitals or institutions or for one of less responsibility than that of "Dietitian A." The qualifications for training in each case are the same, but less experience is required for the second position. The classification of "Assistant Dietitian" demands the same training as the other classifications, but may require little, if any experience. All the appointments are usually made with these qualifications as a basis, together with satisfactory personal references. The fact that superintendents are eager to obtain as well qualified people as possible, assists greatly in raising personnel standards. When a superintendent asks for assistance in filling a position, two or three well qualified people are suggested and the superintendent makes the final selection.

The dietary departments are woefully understaffed as to supervision, in the larger institutions particularly. At the present time twenty-three out of twenty-eight institutions have employed trained people. The exceptions are chiefly penitentiaries or combinations of penitentiary and mental hospital which are entirely for men. One institution has indicated a desire to employ a dietitian but specifies that the position is open only to male dietitians, and since few men have had training as dietitians, this type of position is difficult to fill. Six of the twenty-three institutions have employed qualified dietitians since 1933; at that time there were no assistant dietitians on the pay-rolls—now there are eleven and more are needed.

At the present time there is an institution construction program which involves all of the institutions. Probably ten of them will have completely new kitchens. Most of these plans also include new dining rooms, bakery, cannery storerooms and refrigeration. This construction will greatly improve conditions. In several instances it will also centralize the control and service of food to the extent that more supervisory positions will be necessary. The financial saving brought about by the centralization should more than cover

the necessary outlay for salaries. This new construction will also provide the cafeteria type of service for mental hospital patients. Although this service is used extensively in certain other states, it has not been developed to any extent in Pennsylvania mental hospitals. Authorities in other state institutions believe that this system has a definite therapeutic effect upon the patient, in that it gives more opportunity for training and selection. It is also possible to give the patient better service with regard to the condition of the food as served.

The plans for all institution buildings pass through the Department of Welfare for approval; therefore, the various members of the Bureau of Institutional Management have an opportunity to make suggestions from the point of view of their various specialties.

The nutrition consultant for the state visits institutions at least once a year, but more often from two to four times, depending on the progress of the program under development. These personal conferences with the superintendent, the steward and the dietitian assist greatly in a general understanding of problems involved and help to maintain cordial relationships. Approximately forty to forty-five per cent of the consultant's time is spent in the field. The visits may be made at the special request of the institutions; they may be to discuss and observe the progress of a specific program, or to follow up work connected with a general routine visit. Changes in personnel, such as dietitians, call for a visit of the nutrition consultant soon after such changes have been effected at an institution. This helps to give new employees a better understanding of the policies of the Department of Welfare and helps them in many ways in making adjustments to particular situations. Such visits are usually followed by another in about six weeks' time. Reorganization problems and plans which a dietitian may wish to develop are usually discussed at the second visit and are followed by further conferences with the superintendent and steward. Subsequent visits may be arranged at intervals of two or three months, depending upon problems which may arise.

Visits by the nutrition consultant to county homes, children's homes or schools are made at the specific request of the institution and a report of such visits with recommendations is sent to the superintendent of the institution, or board of trustees.

In 1933, when the Bureau of Institutional Management was first organized, it was requested that some basis of evaluating the adequacy of the institution food consumption be determined. A committee of dietitians and stewards, then employed by the state institutions, together with the nutrition consultant, studied the food consumption of different institutions. Finally a ration was set up for the mental hospitals and schools for the mental defectives, and the penal and correctional institutions. This ration plan is similar to those described in *Diets at Four Levels of Nutritive Content and Cost* by Stiebeling and Ward, Bureau of Home Economics, Department of Agriculture, Washington, D. C. The ration plan set up for institution use falls between "The Adequate Diet at Low Cost" and "The Adequate Diet at Moderate Cost." The purpose of this plan was that it

should form the basis of estimating food budgets; guide stewards and dietitians in estimating food requirements both for purchased commodities and produce raised on the institution farms; and, lastly, form a basis of appraising both food expenditures and adequacy of the diet in general. Practically, this plan has worked out fairly well. Since the ration plan must take into consideration the food which can be produced on the farm, when estimating that which must be purchased, the annual farm production plan evolves from the basic requirements of the institutions.

The food costs of the institutions are low and must be kept so, since these institutions are supported by the taxpayers of the commonwealth. However, while it is important that economy be stressed, this must not be at the expense of the patients and personnel within the institutions. Frequently, inroads on the food budget are not justified; therefore the duty of all connected with the program is to define sharply the basic food needs in each instance.

Many factors have led dietitians to shun this fertile field of endeavor in state institutions. However, many of those who have gone into this type of work feel amply repaid by the satisfaction in accomplishing a very difficult task. In some instances it is still a pioneer job, especially where the organization is so resistant to change that progress is difficult. This fertile field of opportunities for the trained dietitian in state, county and city homes and hospitals has not even been tapped when compared with the general hospital field. These positions, too, merit more serious consideration, from the public health point of view, by those who contemplate employment in state institutions.

FOOD CONTROL IN CALIFORNIA STATE INSTITUTIONS

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FOOD control in California State Institutions is the title of a system of rations and pattern menus which assures each institution and each unit of an institution a well balanced and adequate ration or diet. The kind and amount of food necessary to supply meals for some 27,620 persons in fourteen institutions must be determined. This is the responsibility of the food administrator. The actual purchasing of the food is done by the state purchasing agent. The ration for use in the institutions was developed after a consumption study was made in each institution to ascertain just what was being used and in what manner. The eating habits of inmates, including mental patients, were studied and after considerable investigation over a period of five years, the ration now in use in calculating food requirements was approved.

A ration is the amount of food required to serve one person for one day. It was necessary to set up standardized serving information, including regulations regarding second portions, cooked food, bread, butter, milk, sugar and syrup. In order to do this, basic menus for various types of patients had to be planned. These are termed pattern menus. Ten such menus were made: for the non-working patients, working patients, aged, infirm, edentulous, adolescent, school age, nursery age, and tubercular; and hospital diets such as liquid, soft, light and regular, general employees and staff officers. These menus are used by the supervising cook in each institution. The menu is planned a week in advance, submitted to the superintendent of each institution for his approval, and a copy mailed to the Sacramento office of the Department of Institutions. This food control system insures the patients, inmates and employees a well balanced and adequate ration. Variety and interest, satiety value and palatability are also taken into consideration and an effort made to standardize local production, purchases, preparation and serving of food.

Each institution has a large warehouse or commissary which stocks three months' supply of staple foods. The replenishments, which are made quarterly, are based upon the ration as determined for the individual in each institution, multiplied by the population. In calculating the amounts to be ordered, local production from the dairy, hog ranch, poultry ranch, orchard, vegetable garden, and the season's canning pack are taken into consideration. After local production is determined, the order for purchased food is calculated. This is called the quarterly estimate, and is sent from each individual institution to the Department of Institutions for approval. Once every three months, the estimates for food to be purchased are checked and recommended for approval by the director of institutions, on the basis of the food control, with recommendations for cutting or increasing should these appear necessary. This gives the department an opportunity to evaluate the feeding

situation in each institution once every three months.

After approval, the estimates are sent to the Purchasing Bureau where they are registered in a record book in which each requisition is given a number. They are then transmitted to the buyers and the quantities entered on schedules or proposals. A master sheet is made, showing the quantities required for each of the institutions named on the schedule sheet, and as many copies as are needed for distribution among the list of bidders are run off on a duplicator.

A list of available bidders in the various lines of merchandise is revised from time to time. When anyone asks to be put on the bidders' list, his name is added; after several requests, if he does not respond by entering bids, his name is dropped from the list. This list comprises practically all of the more responsible wholesale merchants and manufacturers in the state. With each schedule we send printed rules and regulations on bids and awards. All the necessary information is on the printed sheet.

In each schedule, specifications are set up to indicate the quality of the merchandise. In other instances, samples are submitted as follows, for example: Fruits, choice grade, according to the Canners' League specifications. Vegetables, latest crop solid pack, with the quality specified such as "extra standard", "choice", or "fancy". In many items, samples are requested, especially with regard to canned beans, peas, corn, tomatoes and certain other items. These samples are cut, tasted and checked as to quality. After deliveries are made, samples are drawn and sent to the Purchasing Bureau, and the quality compared with the original samples as submitted. Jelly and jam specified as "pure fruit", must conform to the definition and standard set up by the California Pure Food and Drug Act. Sea food products must be domestic and the award is made on brand and price except for oysters, salmon, sardines and tuna. Samples of these are requested and award made on quality. Spices must be pure and packed in tins of various sizes. Coffee, green, minimum grade, is required to be good, washed, Guatemala, or equal; samples are requested with bid and when received at the Purchasing Bureau these are divided and numbered and sent to an expert coffee tester and the award is then made, based on the grading report received and price. Tea, also, must pass a cup test.

Gelatin samples are submitted and tests made of solubility, jellying strength, flavor and taste. Macaroni products must be made of No. 1 flour, packed in 25-lb. boxes. Potatoes and onions must be U.S. No. 1 Grade, and are graded before delivery. Beans, dry, are graded before delivery and a U.S. No. 1 certificate accompanies delivery. Dried fruits must be California grown, of latest crop, properly cured and dried, packed in 50-lb. boxes, and graded according to the California Dried Fruit Association standard. Choice grades are specified for all except apples and figs which must be extra choice. Fresh and cured meats are covered by definite specifications. For instance, steer and cow beef calls for Grade A, good quality, dressed carcass, and the specifications give full description as to quality, weights, etc. The same applies to veal, pork, ham, bacon and pork sausage. Butter, cheese and eggs must meet the standard set by the U. S. Department of Agriculture,

and the price is based on daily market quotations and date of delivery. Specifications call for butter, 92 score; cheese, full cream, cheddar type; eggs, U.S. No. 1 medium extras; milk, fresh, 4 per cent butter fat, from tuberculin tested herds. Yearly contracts are made covering milk. Fish must be fresh, with heads and entrails removed, and delivered well-iced.

After the bids are received, opened and tabulated, and samples cut and examined, awards are made, taking into consideration quality, price and service. Orders are then written, giving a full description of the merchandise purchased so that the institution storekeeper when checking in the merchandise, knows exactly what quality to expect. We insist, without exception, when an agreement or contract is made to furnish a given article at an agreed price, that the article or its equal in every sense be delivered; and it is of paramount importance, of course, that we receive the hearty cooperation of the various business managers and others whose duty it is to receive and examine goods at each institution. We are also assisted by the Department of Agriculture, where samples of all prepared meats such as frankfurters, pork sausage, etc. are sent for analysis; and the Bureau of Foods and Drugs, where samples of flour, macaroni, spices, syrup, salad oil, butter, etc. are sent to determine if products meet specifications. Contracts and bonds for perishables delivered weekly are written every quarter, covering such items as fresh meat, butter, cheese, pastes, crackers, and codfish. We keep in daily touch with market prices, records are kept, and freight rates studied to determine the low bid when f.o.b. factory, f.o.b. shipping point, or f.o.b. destination is specified.

As stated previously, in calculating the amounts required for any given institution, its own local products from dairy, hog ranch, poultry ranch, orchard, vegetable garden and season's canning pack are taken into consideration. Each institution's dairyman and business manager determine the expected production of milk for the ensuing three months. If the prospective supply will fall short of the requirements on the basis of the ration, either additional cows are purchased or canned or dried milk ordered to make up the difference. Dried milk is used almost exclusively for cooking and baking.

Poultry ranches furnish some eggs. Many institutions have adequate cold storage space to hold eggs for use during off seasons and therefore a steady supply of eggs is available.

Hog ranches produce fresh meat, shortening, bacon and ham as well as salt pork. We estimate that 25 per cent of all meat required by an institution is the maximum which should be supplied by the hog ranch. Of all dressed pork, 11 per cent is used for bacon and salt pork and 20 per cent for rendering into lard. The hog ranches are able to produce only one-fifth of the amount of shortening needed for the institutions and the remainder must be purchased. While certain meats must be purchased, some of the meat requirements are supplied from the institution's cows, poultry, calves, and occasionally sheep.

When the first consumption studies were made, an outstanding lack, from the point of view of diet, was fat. Another criticism was that there were too

many, rather than too few vegetables. Vast vegetable gardens furnish the institutions with fresh green vegetables all the year round. Some of the institutions were serving 3½ pounds of vegetables besides potatoes per person per day. The result of these excessive servings of vegetables was an enormous volume of garbage, due to waste in preparation and serving amounts beyond that which could be eaten. The regulation of the amount of vegetables served to patients resulted in the use of only the choicest. A "Harvest Guide" was also prepared for each institution in order to correlate the planting and harvesting of vegetables with the requirements. The guide also included instructions for canning. If a local garden should fail to produce adequate supplies of fruit or vegetables for canning, these are purchased in order to bring the season's canning pack up to the requirement. The production of fruit in the institution orchards makes it possible to can and dry fruit for future use. If an institution has an unusual yield of some product, such as prunes, beyond the amount that could be used wisely in that institution, the surplus is determined through the use of the ration and such surplusage is sold either to other institutions or on the open market.

Each institution is visited once every three months by the food administrator and the following items are checked:

1. *The Commodity Control Card File.* This is used as a basis for estimating and ordering and is a record of all orders as well as a price book. It shows the distribution of food within the institution and the issues from the commissary.

2. *The Store Stock.* This is inspected to determine whether supplies are being maintained on the basis of the food control.

3. *Food Schedules.* These are used by the individual kitchens to facilitate the drawing of supplies from the institution storeroom, and duplicate the information on the commodity control card file. The schedules represent the complement of the pantries for the kitchen and bakery for a definite period of time and for a stated number of patients, inmates or employees.

4. *Food Service.* Inspections are made of all dining rooms to observe the food service. In some institutions where the "cottage plan" for the care of patients is in effect, as many as 30 dining rooms must be visited. It takes about a week to do this in a satisfactory manner. Each dining room makes out a report slip, stating the amount of food received, the amount used, shortage or surplusage, and the amount of garbage as well as the number of patients served. This report is sent to the supervising cook, who is then able to determine the amount of bread, butter, milk and cooked food needed for each group.

5. *Recipes.* Occasionally it is necessary to revise certain institution recipes in order to furnish adequate nourishment for the patients.

6. *Accounting.* It is necessary to maintain uniform methods of accounting. The average cost per meal in one year was $.0713 or $.2139 per day. The year previous, the cost per meal was $.0689 or $.2067 per day. This cost increase was due to the fact that the market index of prices had gone up five points. This index should, of course, be taken into consideration when one year's costs are compared with another.

7. *Job Analyses.* These are made and

presented to the superintendent of each institution in order to assist him in planning schedules for the personnel.

8. *Kitchen Planning.* New kitchens and dining rooms as well as remodeling of old kitchens are planned by the Division of Architecture in consultation with the Department of Institutions. A manual of specifications has been prepared for use in planning kitchens for mental hospitals.

9. *Bakeries.* Each institution has a bakery in which all bread and pastries are prepared. A planned bakery schedule indicates the kind of bakery goods to be baked for each day.

10. *Meat Cutting.* Almost all the institutions have their own slaughterhouses and meat cutting shops. Programs have to be worked out for these.

In the last analysis, the menu as written must conform to a definite plan. Each menu is really a lay-out of work for the employees in the culinary units. The meat cutter consults the menu as a guide in meat cutting, in order to use his cuts to the best advantage. Other units such as the vegetable rooms, oven men and pot men follow the menu as a lay-out of work.

In estimating quarterly food requirements, the basic menus as outlined for the three daily meals of patients and employees serve as planning data. The quantity of food necessary according to these menu outlines is then determined as follows:

1. *Cooked Food for the Patients:* The following foods are served on the basis of a 4 oz. serving or ½ cup per person: fruit, stewed, canned or fresh; vegetable, cooked or salad; desserts, such as puddings. This allows for 32 servings to a gallon. However, in order to allow second helpings, it is well to calculate that there are only 24 servings to one gallon. In other words, 100 patients would require approximately four gallons of food of this type.

The following foods are served to patients on the basis of an 8 oz. serving: cereals, coffee, soup, main dish, milk. This allows for 16 servings to a gallon. However, in order to allow for second helpings, 12 servings to a gallon should be considered the maximum. Therefore, for every 100 patients, it is necessary to prepare eight gallons of food of this type.

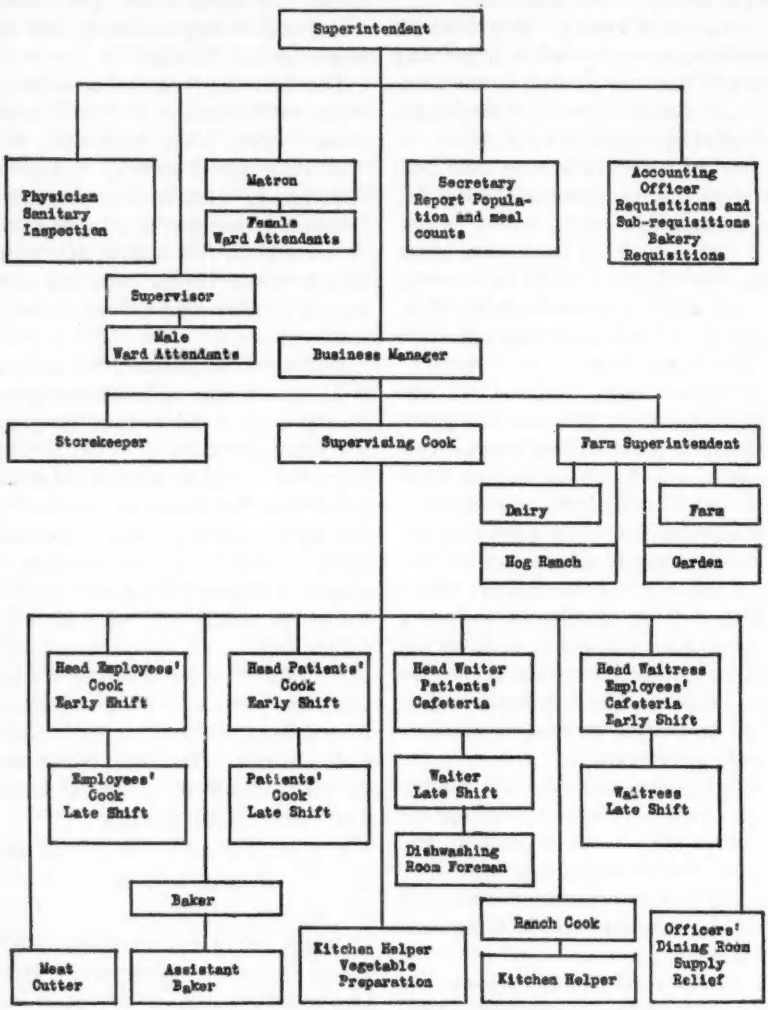
2. *Bread:* The standard loaf of bread is 24 oz. A slice of bread is approximately 1 oz. The average serving is two slices per meal, or 6 oz. per day. However, through experience, it has been found that the allowance of 10 oz. of bread per patient, per day, is necessary. Therefore, for every 100 patients, 41 loaves of bread are required. These loaves are usually $4\frac{1}{2}$ x $4\frac{1}{2}$ x 13 or $13\frac{1}{2}$ inches long.

3. *Butter:* One pat of butter is served at a meal. This is $\frac{1}{64}$ of a pound. Butter is served only twice a day, at breakfast and at supper. The daily requirement for 100 patients is $4\frac{1}{2}$ lbs. of butter, which comes in 60 lb. boxes.

4. *Milk:* The allowance for one day's milk for beverage purposes is 13 oz. in the average institution; 100 patients, therefore, would require approximately 10 gallons of milk for beverage purposes. One ounce per day, per person, is used for baking, and 2 oz. per day, per person, for cooking purposes. These requirements are frequently supplied through dry skimmed milk. Otherwise, the kitchen requirements for milk are $1\frac{1}{2}$ gallons

of milk for every 100 persons in addition to beverage requirements.

is needed for dining room use per day. This is equal to $6\frac{3}{4}$ level teaspoons. This



ORGANIZATION OF CULINARY UNIT, CAMARILLO STATE HOSPITAL, CALIFORNIA

5. *Sugar Usage for Dining Room:* Experience has shown that not more than 7 lbs. of sugar for every 100 patients may be divided as follows: breakfast, for mush and coffee, 4 teaspoons; dinner or supper, tea, $\frac{1}{2}$ tablespoon. It is recom-

mended that a maximum of not more than ½ lb. of sugar per patient be issued to a ward or dining room per week. This would be a maximum of 50 lbs. of sugar for every 100 patients served.

6. *Dry Coffee for Use in Coffee Making:* 10½ lbs. of coffee mixture, consisting of ⅘ coffee and ⅕ chicory, is used for every 100 patients per week for coffee making. Coffee is made on the basis of 1 lb. of coffee to each 6 gallons of water. Storage space for dry coffee should be provided near coffee urn. A pound of coffee is approximately one quart in volume.

7. *Tea Making:* 1¾ lbs. ot dry tea will make a sufficient amount of tea for 100 persons for one week to be served daily. This is an average of ¼ lb. of tea a day. One pound of tea occupies the space of ½ gallon by volume.

Quantity of Food to Prepare for Employees. Served on the basis of 100 persons: An average serving of fruit, cereal, salad, potatoes, dessert or other made dish may be considered as 5 oz. This is equal to 25 servings to a gallon; 100 servings would require 4 gallons of food. A serving of soup may be considered as 6 oz.; 20 servings to a gallon; or 5 gallons of soup for every 100 persons. Five ounces of meat is a generous serving. Therefore, for every 100 persons, 33 lbs. of meat is required. Butter is served on the basis of 60 cuts to a lb., 1⅔ lb. per 100 persons, per meal. Bread is used by employees on the basis of 6 oz. per person, per day.

The Department of Institutions, with the cooperation of the Department of Finance, has made it possible to make some real improvements in institution food service in the last three years. At times it has been necessary to authorize a substantial increase in cost to accomplish this. An increase of merely one cent a meal per person results in a total increased cost of $302,439.00 a year for all institutions. The improved food service, as a result of the additional expense, in this instance meant more satisfied patients. Medical superintendents in the institutions feel that the scientific control of food has resulted in improved well-being of the patients. One of the first requisites in the treatment of disease is proper diet and this is important in mental illness as well as in physical illness.

BUDGETING THE STUDENT'S FOOD DOLLAR IN A COOPERATIVE RESIDENCE HALL SYSTEM

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THE trained food manager of a college residence hall has the problem of maintaining the desired nutritive value in the dietary, along with serving attractive menus, at a cost within the food budget. The commercial food unit has been studying methods for the control of operating and food costs for some time, but the non-commercial or non-profit food unit has done much less in analyzing and controlling costs (1).

The control of food costs is essential in the cooperative residence hall system at Iowa State College. The women students in two cooperative hall units each pay $2.65 a week for board; the men, in their cooperative hall unit, $3.25 a week. The organization is self-supporting; in addition to paying for food purchases, the board income pays all operating expenses and maintains a reserve for repair and replacement of equipment and furnishings.

In order to keep our expenses within the limit dictated by our income, careful planning has been required. There are five control practices followed in our cooperative residence hall system which have made possible an annual surplus when a deficit seemed indicated. These five control methods are:

1. A carefully planned budget.
2. A food budget based on dietary needs of the students.
3. A daily and weekly per capita meat cost budget.
4. Daily food cost records and record of food cost to date for the month and for the quarter.
5. Assembly in the storeroom of all ingredients for each recipe on trays before issuance to the kitchen.

The first control method, the budget, is planned for the men's and women's cooperative residence halls by the quarter. It has been found that the budget is more accurate if prepared for the quarter, instead of the year, because of the variation in number of residents in the hall. The lessening of income when, for example, three students withdraw at the close of a quarter, makes a change in the figure to be set as the per capita daily food cost allowance. After determining the probable income and carefully estimating operating costs, one can find the daily available food cost allowance. During the past year, 1937–1938, the per capita daily food budget in our cooperative system has averaged 28 cents a day for the women students and 36 cents a day for the men.

The second step in the control of our food costs, based on the dietary needs of the students, is dividing the food budget into these five parts: (I) meat, fish, eggs, cheese; (II) milk, cream; (III) fruits, vegetables; (IV) cereals, breads; and (V) fats, sugars, and miscellaneous groceries. In order to determine what percentage of the per capita daily food cost could be spent on the five classes of food, dietary studies were made in the men's and women's halls. Hawley's method of calculating energy, protein, calcium, phosphorus, and iron in the diet was used in these studies (2).

It was found for both groups that the dietary provided in the halls, even after deduction was made for plate and table waste, was adequate according to Sherman's standard allowance (3). At the time these dietary studies were made, the distribution of food expenditure among the five food groups was calculated. This distribution of the food dollar for the past year in the cooperative residence halls has been: meat, fish, eggs, cheese, 25 per cent; milk and cream, 17 per cent; fruits and vegetables, 25 per cent; bread and cereals, 15 per cent; and fats, sugars, and miscellaneous groceries, 18 per cent.

The third procedure for controlling costs, using a daily and weekly meat cost budget, has aided in the control of food costs. With a control of meat or entrée costs, an important problem of food purchasing versus a balanced budget, has been solved. Using the 25 per cent found by the dietary studies as a satisfactory percentage of the food budget to be spent for meat, fish, eggs, and cheese, the purchasing of meats is planned by the week on the per capita basis. Since the total food budget is 36 cents a day for each man and 28 cents a day for each woman, 9 cents, and 7 cents a day, respectively, are available for meat, fish, eggs, and cheese. The manner in which this budget operates is illustrated in table 1.

In the women's halls, meat or fish, or a dish which contains meat is served at dinner. In the men's hall, meat or fish is on the menu for dinner and occasionally on the luncheon menu. Meat is served at luncheon usually when the main dinner dish is one in which meat is combined with other ingredients to make what is frequently termed a meat substitute dish. An illustration of this is found in table 1. On Thursday, chicken has been used with spaghetti. The amount of chicken used is well under the budget allowance for meat for the day, making possible the serving of cold sliced beef on the luncheon plate.

On two days, as shown in table 1 for both the men's and women's groups, the daily total meat cost is over the budget allowance. The use of a daily record of meat expenditures and a budget control figure make this immediately evident, so that costs during later days of the week can be averaged down, thus keeping expenditures within the determined allowance.

Not less important than the meat expenditure record is the fourth control practice, daily food cost records and records of food cost to date for the month, and for the quarter. This record is compared at frequent intervals with our food budget and thus on any given day we can determine our exact financial position. This procedure calls for the use of a daily food cost sheet. Our form for such a sheet is illustrated in table 2. Notice that this form is in three sections: the first, for total costs of the five groups of foods which have been purchased or issued from the storeroom each day; the second, for the number of boarders; and the third, for per capita costs per day, and per capita costs for the month and for the quarter.

This leads to our fifth method of controlling food costs which is the practice of assembling, on trays in the storeroom, weighed ingredients used in each recipe. Each recipe is given to the assembly room girl who weighs the ingredients called for, places these on a tray, and then places the tray on a storeroom shelf where it remains until

TABLE 1

Cooperative halls, meat expenditure budget

Budget Allowance: *June 1–7, 1938.*

Men: Number in Hall *115*
Daily: Per Person *.09** For Total Number *$10.35*
Weekly: Per Person *.63* For Total Number *$72.45*

Women: Number in Halls *172*
Daily: Per Person *.07** For Total Number *$12.04*
Weekly: Per Person *.49* For Total Number *$84.28*

DATE	MEAT	WOMEN'S HALL NO. 1	WOMEN'S HALL NO. 2	DAILY TOTAL	TOTAL TO DATE	BUDGET ALLOWANCE	MEN'S HALL	DAILY TOTAL	TOTAL TO DATE	BUDGET ALLOWANCE
WED.—6/1	Fresh Ham	$6.98	$4.25				$8.95			
	Ground Beef	1.05	.63							
				$12.91	$12.91	$12.04		$8.95	$8.95	$10.35
THUR.—6/2	Chicken with Spaghetti	5.87	4.29				7.98			
	Luncheon Beef						4.20			
				10.16	23.07	24.08		12.18	21.13	20.70
FRI.—6/3	Cheese	1.85	1.00				1.85			
	Salmon	4.80	3.60				5.40			
				11.25	34.32	36.12		7.25	28.38	31.05
SAT.—6/4	Eggs	6.30	4.40				6.30			
	Sausage	5.03	2.82				6.24			
	Stew, Veal						5.12			
				18.55	52.87	48.16		17.66	46.04	41.40
SUN.—6/5	Steak	6.30	4.20				7.35			
				10.50	63.37	60.20		7.35	53.39	51.75
MON.—6/6	Shrimps	1.80	.90							
	Ham Loaf	4.68	3.51				7.02			
				10.89	74.26	72.24		7.02	60.41	62.10
TUES.—6/7	Beef Tongue						3.75			
	Rib Roast	5.67	3.40				6.48			
				9.07	83.33	84.28		10.23	70.64	72.45

* 25 per cent of daily per capita food allowance.

TABLE 2

Food cost sheet

Dormitory—*Women's Cooperative Halls* Month—*June 1938*

	FOOD COSTS								MEALS SERVED		FOOD COSTS PER PERSON		
	Day	Meat, Fish, Eggs, Cheese	Milk, Cream, Ice Cream	Bread, Cereals, Flour	Fruits, Vegetables	Fats, Sugars, Groceries	Daily total cost	Total cost to date	Paying Boarders	Total Boarders to date	Per Boarder daily	Per Boarder to date	
												For the month	For the quarter
Mar. 21 to May 31								$3,330.80		11,868			$.281
June 1	Wed.	$12.91	$13.13	$4.74	$10.60	$3.27	$44.65	44.65	172	172	$.26	$.26	.28
2	Thur.	10.16	10.35	3.24	12.45	1.30	37.50	82.15	172	344	.218	.239	.28
3	Fri.	11.25	8.35	3.70	18.69	11.93	53.92	136.07	172	516	.313	.263	.28
4	Sat.	18.55	4.95	6.73	17.77	3.26	51.26	187.33	172	688	.298	.272	.28
5	Sun.	10.50	11.25	.66	4.77	1.24	28.42	215.75	172	860	.165	.251	.278
6	Mon.	10.89	6.23	2.08	20.06	1.69	40.95	256.70	172	1032	.238	.249	.278
7	Tues.	9.07	7.88	2.36	9.24	2.41	30.96	287.66	172	1204	.18	.239	.276
8													
9													
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23													
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26													
27													
28													
29													
30													
31													
Totals													
% Costs													

issued to the student kitchen manager for preparation of the next meal. Under this assembly plan, no food supplies except seasonings are kept in the kitchen. Student cooks are encouraged to learn the judicious use of seasonings.

The number of failures in food products from inaccurate measuring or weighing has been minimized. The assembly room plan has been a valuable aid in smoothing the operation for an accurate food cost control system.

SUMMARY

We believe that maximally favorable control of expenditures in cooperative residence halls can be obtained by the practice of the five procedures given. These practices have proved effective in securing better meals along with the elimination of needless waste and the lessening of financial worries that may harass even the most careful manager.

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THE USE OF METRIC WEIGHTS IN INSTITUTION FOOD CONTROL[1]

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WEIGHTS can be used with profit in any type of institution, in the control of all three phases of food administration—purchasing, preparation, and service. They are especially useful where food must be distributed to several serving points. The use of weights is simple and time-saving, and cuts food cost by promoting accuracy. Perhaps the greatest value is in decreasing the annoyance of correcting errors in the quantities prepared or distributed. A certain dietitian, coming into her kitchen at noon, said to her Polish chef, "You look tired. Have you had a hard morning?" His reply was, "Oh, 'taint the work, it's the aggrawation." The use of weights can save a great deal of "aggrawation." The work covered by this report has been done in two hospitals. Adaptations to other types of institution could easily be made.

The idea originated as a result of a visit seven years ago to St. Bartholomew's Hospital in London, where the supervisor was an alert woman, home economics trained. Her method of distributing milk to the many wards of that large hospital was by weight. Head nurses, she said, learned easily that a quart of milk approximates two pounds, and ordered in pounds as readily as in quarts. Since milk distribution had been one of the visitor's "aggrawations," the incident was not forgotten. In thinking it over one day, she asked herself whether the same system that worked so well for milk might not be applied to other foods. This, however, brought up the problem of the arithmetic involved in handling pounds and ounces, the obvious solution of which was the use of the decimal, or metric, system.

The dietary department where this work has been done feeds two county hospitals separated by a distance of five miles, one a general, 450-bed hospital, the other a 260-bed hospital for chronic diseases. The two divisions operate separately except that the chief dietitian is in charge of both dietary departments, and storage of staples and meat, meat cutting, and ice cream making are at the larger unit. The general hospital, referred to in this report as unit 1, opened in 1931, when work on this project started. The smaller, unit 2, is the old county hospital which had operated for many years.

The project was first developed in the general hospital, unit 1, where the situation was particularly favorable because the whole organization was new, with no precedents to be broken down, and because funds were available for the purchase of any equipment required. It was later extended to the old county hospital, unit 2, an organization somewhat resistant to change, most of the kitchen personnel having been there for many years, and where it was necessary to reduce the expenditure for scales to a minimum. When a change of system in this old kitchen was proposed it met with

[1] Read at the Northwest Regional Dietetic Convention, Portland, Oregon, April 22, 1938.

the same opposition that had greeted even minor changes. When it had been in operation two weeks, all the kitchen workers were enthusiastically in favor of it. By controlling the amount prepared, the system had eliminated the rush of improvising a substitute when the supply was insufficient, and by adjusting the amount sent to the various wards more accurately to their needs, it had markedly decreased the number of calls to the kitchen for more food, and had also reduced the amount of left-over food to be put away and used later.

The first step in instituting this system in a dietary department consists in securing scales which meet the requirements of speed, durability, accuracy, and ease of cleaning. They must be of the dial type, since the use of beam scales is too slow. Large scales should be set on scale stands, preferably on wheels or casters, adjacent to the working surface where they are to be used, such as the cook's table or the baker's bench, with the scale platform level with the working surface. The platform must be large enough to hold any pan to be used for baking, or food truck and steam table insets.

In the 450-bed general hospital with distribution to nine ward pantries, we use two 1000-gram scales of the type available in every hospital for weighing diabetic diets, and two standard 50-pound circular dial scales with special metric dials. The original cost of the large scales was about $300 apiece. Since the food cost for this hospital for a period of seven years has been over $400,000, this cost of scales has been less than fifteen hundredths of one per cent of the food cost to date, an insignificant figure compared with the savings which have been effected by improved control. At the present time the scales are in excellent condition and will last for many more years.

The four scales are distributed as follows: One of the small scales is used to weigh cut butter at each meal for distribution to the wards; the other is assigned to the maid in charge of small orders. One of the large scales is in the pastry shop; the other at the range. The baker makes and distributes all desserts to the trucks. The cooks, the truck boy who weighs milk and bread, and the helper who prepares between-meal feedings share the use of the kitchen scales.

As soon as we were sure of the success of the experiment in the new kitchen, we were anxious to develop the same procedure in the old, but it was several years before we were able to do so. One large scales, besides the small gram scales which we already had, was sufficient to serve this smaller and simpler unit, but the appropriation for even one scales could not immediately be secured. Finally, a small sum became available, and the search was started for the least expensive equipment which would be satisfactory. A second-hand parcel post dial scales, in good condition was obtained at about half of its original price of $125. This scales had a standard fan-shaped, fifty-pound capacity dial. The metal dial was taken out, and the dietitian calibrated it in the metric system. The hospital's surgical artist printed the new figures in red, the dial was returned to its place, and we had a metric scales.

The use of metric weights in food distribution to the wards has been tried out under two different systems of food

service. Both hospitals use decentralized service from ward pantries. At unit 2, the dietitian is nominally responsible for all food service but the direct supervision of tray service to patients is by the head nurses. Prior to October 1935, the same system was used at unit 1, but since that date ward dietitians have been available to supervise tray service. In both situations, the use of weights has reduced friction and waste.

In estimating the amount of a food to be sent to each ward, the number of portions needed is multiplied by the average weight, in grams, per portion. When nurses serve, they simply report the census of patients on general, soft, and liquid diets, and a dietitian or a clerk in the kitchen does the calculations. When ward dietitians are ordering, they order from the kitchen the amounts in kilograms, of food required by their wards.

To establish the average size of serving, a typical tray should first be set up, and the amount of each food that it contains weighed on a gram scale. The figures thus obtained should then be used as tentative standards, careful record being kept not only of the amount sent to each ward, but also of the calls for additional supply and surplus food returned. Careful scrutiny of these records for two or three weeks will show which of the tentative standards need correction. The needs of the wards will differ with the age and sex of the patient and the type of disease treated, as was shown by Hanselman in a study of food intakes on the various services of our unit 1[2]. The sizes of serving of the most common foods, as now in use at unit 1, are shown as Form I.

[2] J. Am. Dietet. A., May, 1938.

Since the decimal system is used, the multiplication of the average serving by the number of servings required is simple even when it is done by actual calculation. It can be simplified further by having at hand a cross-ruled multiplication table from which the values can be read. A section of such a table is here shown as Form II. We have used this table for six years for all the calculations needed in the above operation, except such as can readily be done by mental arithmetic.

The values thus obtained are then set down on a kitchen work sheet. At unit 1, we have two such sheets, shown as Forms III and IV. Form III is a cross-ruled sheet of standard $8\frac{1}{2}''$ x $11''$ size, made up each day as follows: for the cook, a sheet for each meal, showing hot foods; for the baker, a sheet showing all desserts; for the nourishment unit, a sheet showing fruit juices, cocoa, etc.

Several other workers are involved in preparation of foods for patients, for whom we have found it more convenient to devise the second type of work sheet, $4\frac{1}{4}''$ x $11''$ in size, and perforated in one-inch strips. Each food is listed, with the number of the ward which requires it, on a separate strip. When the food is ready, the worker tears off this strip and uses it for a label by putting the end of it under the edge of the cover of the container used. These sheets, Form IV, are used for the following workers: the truck boy, for bread, butter, and milk; and the maid who prepares weighed foods and small quantity recipes.

These sheets would be worked out differently in other institutions, since no two sets of circumstances are identical. Our own two hospitals are in fact quite different in this respect. Since

FORM I

Standard Portions in Grams of Foods Served

Fruits & Preserves:	
Fruits	100
(Fresh berries	80)
(Sliced peaches	80)
Fruit Juice:	
Breakfast	150
Nourishment	200
Jelly, jam, honey	15
Marmalade	20
Cereals:	
Cooked	150
(Corn-meal	140)
(Wheatflakes	140)
(Rice	90)
Prepared:	
Corn Flakes, 12 serv. per pkg.	
Shr. Wheat, 12 serv. per pkg.	
Rice Krispies, 10 serv. per pkg.	
Milk for Breakfast Cereal:	
Cooked cereal	60
Rice	100
Prepared cereal	100
Milk toast	120
Toast and Bread:	
Toast	1 slice
Bread	1 slice
Toast with entrée:	
½ slice with entrée	
½ slice on bread plate	
(1½ slices for men)	
Milk toast	1½ slices
Butter and Cream:	
Butter, per slice of toast or bread	7
Cream, per serving (1 creamer)	30
Whipped cream	10
Beverages:	
Milk—Dinner	200
Nourishment	200
T.B. patients (daily)	600
Cocoa—Meals	150
Nourishment	200
Coffee, tea (cups per gal.)	20
Soups	150
Meats:	
Roasts	50
Stews	150
Short ribs	150
Baked hash	100–120
Meat loaf (cooked)	100
Meat loaf	No. of servings
Meat balls	No. of servings
Steaks	No. of servings
Chops	No. of servings
Bacon strips	By count
Fish	No. of servings
Gravy	30
Sauces	30–40
Potatoes & Dressing:	
Mashed	80
Steamed or creamed	100
Scalloped	100–110
Baked	No. of servings
(order ½ serving butter)	
Dressing	80
Vegetables:	
Carrots	80
(julienne	70)
Peas	80
Tomatoes	80
(sliced, fresh	60–70)
Corn	80
Beets	70
String beans	70
Asparagus	70
Spinach	70
For soft diet	80
(sieved, timbal, or soufflé)	
Entrée:	
Scalloped dishes	130
Soufflés	100
Rice omelet	90
Eggs, scrambled	100
Eggs, scalloped or creamed	100–120
Creamed dishes	100
Welsh rarebit	90
Salads:	
Potato	100
Fruit	100
(Waldorf	80)
Vegetable	70
Leafy vegetable	50
Cottage cheese	90
(order fruit by count)	
Grated American cheese	10
Salad Dressings	10
Desserts:	
Puddings	100
Graham cracker	80
Prune or apricot whip	80
Whipped and marshmallow	50
Cake	No. of servings
Cookies	No. of servings
Cobblers	No. of servings
Ice cream (20 serv. per ½ round container)	

unit 1 does not operate a special diet kitchen, and all foods for therapeutic as well as general diets are ordered by the wards in a day. At unit 2, the special diet kitchen uses central service for therapeutic diets, and there are only

FORM II

	7	20	30	40	50	60	70	80	90	100	110	120	130	140	150	
2	14	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	2
3	21	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.5	3
4	28	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.6	0.6	4
5	35	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.8	5
.....																
56	392	1.1	1.7	2.3	2.8	3.4	3.9	4.5	5.1	5.6	6.2	6.7	7.3	7.9	8.4	56
57	399	1.2	1.7	2.3	2.9	3.4	4.0	4.6	5.1	5.7	6.3	6.8	7.4	8.0	8.6	57
58	406	1.2	1.8	2.3	2.9	3.5	4.1	4.6	5.2	5.8	6.4	6.9	7.6	8.1	8.7	58
59	412	1.2	1.8	2.4	3.0	3.6	4.2	4.7	5.3	5.9	6.5	7.1	7.7	8.3	8.9	59
60	420	1.2	1.8	2.4	3.0	3.6	4.2	4.8	5.4	6.0	6.6	7.2	7.8	8.4	9.0	60
	7	20	30	40	50	60	70	80	90	100	110	120	130	140	150	

FORM III

Kitchen Work Sheet

For: *Dinner (Cook's Work Sheet)* Day: *Saturday*
Date: *April 9, 1938*

	2ND FL.	ISOL.	3RD FL.	4TH FL.	5TH FL.	6TH FL.	7TH FL.	8TH FL.	9TH FL.	10TH FL.	PERSONNEL	TOTAL
Broth	1.8	2.7	1.7	4.1	1.3	2.7	1.4	1.1		0.8		17.6
Roast Lamb	0.5	1.0	0.9	1.5	1.1	2.9	1.0	1.4		1.0	0.1	11.3
Mashed Potatoes	2.1	3.0	3.5	3.8	2.4	6.4	2.2	2.8		2.6	0.1	28.8
Gravy	0.7	1.0	0.8	1.3	0.9	2.0	0.7	1.1				8.5
Buttered Carrots & Celery	0.6	1.4	1.3	1.9	1.6	5.2	1.4	2.5		1.3		17.2
Carrot Loaf	1.3	1.6	1.8	1.5	0.5	1.6	0.7	0.6		0.9		10.5
Salt-poor Roast Lamb			0.060									0.060
Ground Roast Lamb	0.3	0.2	0.5		0.150	0.3				0.6		2.150
Salt-poor Mashed Potatoes	0.1		0.1									0.2
Salt-poor Carrots & Celery			0.1									0.1
Salt-poor Sieved Carrots	0.3						0.1			0.3		0.7
Carrots	0.180		0.320			0.120				0.1	0.1	0.820
Celery	0.140		0.180		0.1							0.420
Corn		0.1			0.1					0.3		0.5

ward dietitians from the main kitchen, by actual count over 500 food items are checked out of this kitchen to the nine three wards, so that the main kitchen problem is much simpler, and one small, simple form suffices.

FORM IV
Kitchen Work Sheet

2	N. D. Peaches	0.450
Isol.	Malted Milk with Ice Cream	0.3
3	Diab. Cream of Asparagus Soup	0.3
4	Super Farina	0.150
5	Mayonnaise	0.010
5	Lettuce	0.050

and count which comprises the usual recipe is changed into metric weights. This is easily done with a table of weights and approximate measure and a conversion table, so that it is no great task to convert into metric weights a set of recipes sufficient for ordinary use in the average institution. At this point, however, a problem is encountered which takes considerable time to work out—the standardization of yield. The usual recipe is standardized to yield a given number of servings. That this is not entirely satisfactory is one of the most frequent complaints of kitchen managers. The recipe which yields 50 servings in one kitchen yields 40 or 60 in another because of a difference in the size of serving. In the set-up which we are

Standard Recipe for: *Maple Nut Mold* Unit 1

INGREDIENTS	MEASURE	WEIGHT	PROCESS
Brown sugar		1.600	Mix cornstarch to a paste with part of milk. Scald remainder of milk. Add sugar and cornstarch paste slowly, stirring constantly. Beat the whites of the eggs until stiff. When the cornstarch mixture is clear, add egg whites and beat until mixture is cream colored and consistency of marshmallow paste. Add salt and flavoring. Cool before adding nuts. Mold.
Cornstarch		0.450	
Milk		7.610	
Egg whites		0.695	
Nut meats		0.765	
Mapleine	1½ tsp.	0.006	
Salt	1 tsp.	0.004	

Vol. of product	15 qt.	Serving instruction:
Wt. " "	10.0	
No. of portions	100	
Size " "	100 gm.	
		Checked: Source: U. of W.

The total amount of each food required is determined by totaling the distribution sheets. The next step is to control the amount prepared, and for this purpose the recipes used must be translated into the metric system. The odd assortment of weights, measures, describing, the serving is a unit which is not used in the kitchen at all, and a recipe in which yield is expressed in servings is meaningless. It is therefore necessary that the yield of each recipe be expressed in weight. This involves actual experimental preparation of each

recipe, so that the weight of yield may be determined. Then, just as measured recipes are standardized so that all yield the same number of servings, usually 6 for the family and 50 or 100 for the institution, the weighed recipes must be standardized to give comparable weights of yield. In order to utilize the simplicity of the decimal system and make it as easy as possible to increase or decrease recipes, 10 kg. has been adopted as the standard of yield of the institution recipe. Those unfamiliar with this system will visualize the quantity involved by thinking of the 10 kg. recipe as 67 servings of soup (5 oz. per serving), or 100 servings of mashed potato ($3\frac{1}{2}$ oz. per serving). An example of such a recipe is included in this paper.

The simplicity of various steps is shown by the following example:

ITEM	WARD	SERVINGS	AVERAGE SERVING	KILOGRAMS REQUIRED
Soup.....	A	40	150 gm.	6.0
"	B	50	" "	7.5
"	C	33	" "	4.9
"	D	18	" "	2.7
Total to be prepared				22.1

This quantity is slightly more than twice the (10 kg.) recipe.

In distributing the prepared food, the container is placed on the scales and weighed. It is then filled until the desired weight of container plus food is reached. Liquids are poured from a pitcher. Solids are ladled, but without the necessity for counting. Gelatin mixtures are weighed into pans before hardening and baked dishes are weighed before baking. These pans are then labeled, so that the foods are taken directly from refrigerator or oven to their destination without re-handling. Weighing reduces both the time and the confusion involved in food distribution. It is more accurate, quicker, and more convenient than measuring or estimating.

Many uses of the metric system present themselves as time goes on, and each dietary department using it would undoubtedly make its own adaptations. For instance, in this dietary department a record of per capita waste is kept. Part of the garbage is weighed in the kitchen on metric scales, and the rest is weighed on avoirdupois scales. The record, however, is kept in kilograms because the division of the weight of the garbage by the meal census, to find the per capita waste, is so much simpler when metric weights are used that it is worthwhile to change the pounds to kilograms by the use of a conversion table before using the figures.

When canned goods are sampled a record is kept of the total weight of the contents of the can, and the weight of solids in grams. The weights of the brand selected for purchase are kept conveniently available at the dietitian's desk, to be used in determining the number of cans required for the day's use. For example, the solid content of a number ten can of peas is between 1700 and 1900 gm. Assuming that our sample contained 1800 gm. of solids, and that the requirement for peas totaled 25 kg., the number of cans to be supplied to the cook would be 25 kg. divided by 1.8 kg., or 14.

Calculations of food values are greatly simplified when recipes are written in metric weights.

Many people will feel that the use of metric weights is complicated because American workers are unfamiliar with

kilograms. We have not found this to be true, but if the obstacle of an unfamiliar system of weights seems greater than the obstacle of a clumsy one, pounds and ounces should by all means be used. The multiplication table could be worked out in number of servings multiplied by ounces instead of in number of servings multiplied by grams, and the use of this table brings the avoirdupois system within the realm of practicality by eliminating much calculation. Hospital dietitians are accustomed to expressing size of servings equally readily in grams or in ounces, but other workers may perhaps find ounces less formidable. Scales can be procured for either system. It is the fact of weighing rather than the system of weights used which is of fundamental importance in food control. Both metric and avoirdupois weights have their advantages, chief among which are the more general use of pounds and ounces on the one hand, and the greater convenience of the decimal system on the other. Multiplication and division by ten are easier than multiplication and division by sixteen.

This paper is a report of seven years' work in the use of metric weights in the dietary department of two hospitals, work which can still be carried further, as there are several aspects of the problem which have hardly been considered. The results seem to justify the conclusion that this system is successful in solving many of the problems of institution food control. It has proved its usefulness in the distribution of the correct quantities of food to a number of serving units, and in the preparation of the right amount to avoid waste and shortage.

THE ORGANIZATION OF SEVERAL DIETARY DEPARTMENTS

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THE hospital dietary department is organized to serve specific needs which vary according to the type and size of the hospital, and the service it renders. The accompanying charts show the dietary organization in five hospitals.

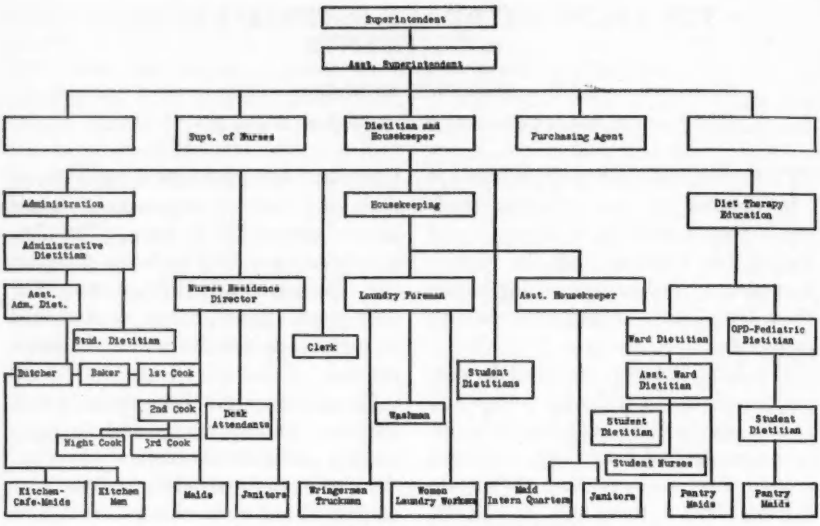
The King County Hospital is controlled and supported by the county and its services are extended to the indigent. It is composed of King County Units 1 and 2. Unit 1 serves those with acute illnesses; unit 2, those with chronic illnesses. Unit 1 is equipped to care for 450 patients; unit 2 maintains 260 beds. The Marine Hospital, a 350 bed hospital, is a government institution maintained only for the care of the merchant marine employees. The Children's Orthopedic Hospital is a philanthropic organization for needy children who require orthopedic care. The Virginia Mason Hospital, a 145 bed private hospital, was organized by a group of doctors comprising the Mason Clinic, but operates independently of the clinic. It is a self-supporting, non-profit making institution with an open staff. The Swedish Hospital, a private hospital of 200 beds, is also self-supporting and non-profit making.

Because of different fields of service, the organization of the respective dietary departments varies. The King County Hospital System has many outlets of service, thus its dietary organization, as can be noted on the chart, is complex. The superintendent and assistant superintendent head the hospital organization with the various department heads directly responsible to them. The dietary department head is also in charge of the housekeeping department. The dietary and housekeeping departments of unit 2 are likewise under the same control.

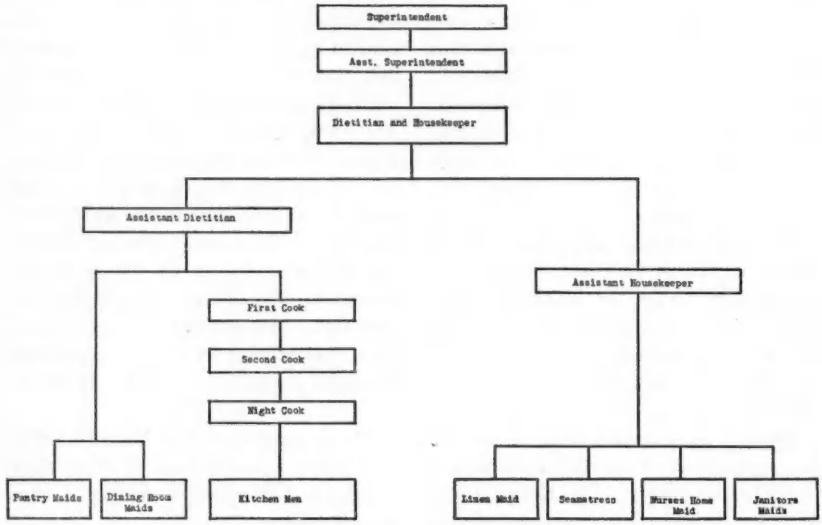
King County unit 1 employs six staff dietitians and gives training to eight student dietitians throughout the year, there being approximately four students on duty at one time. King County unit 2 employs one staff dietitian and no students. In addition to the department head, the staff of unit 1 includes the administrative dietitian, who is in control of the main kitchen; her assistant, who relieves her and also serves as night dietitian; and the ward dietitian, who serves on the medical, surgical, and orthopedic floors and assists in the education of student dietitians and student nurses. An assistant to the ward dietitian aids on the wards. The out-patient dietitian also serves on the pediatric floors and is in charge of the making of formulas. Her out-patient service consists of education to the clinic patients through consultation and classroom work.

The student dietitians have opportunity to work under each of these staff members, successively, during a six-month period.

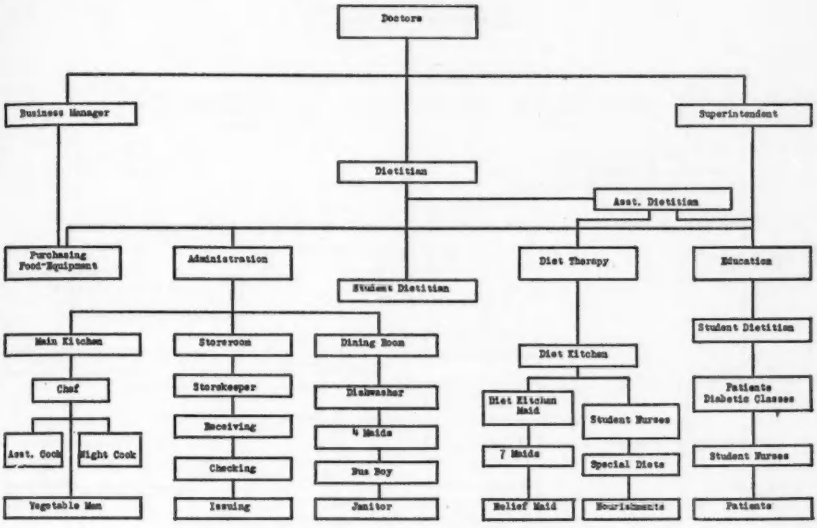
As will be noted from the chart, the laundry organization and the nurses' residence housekeeping is under the



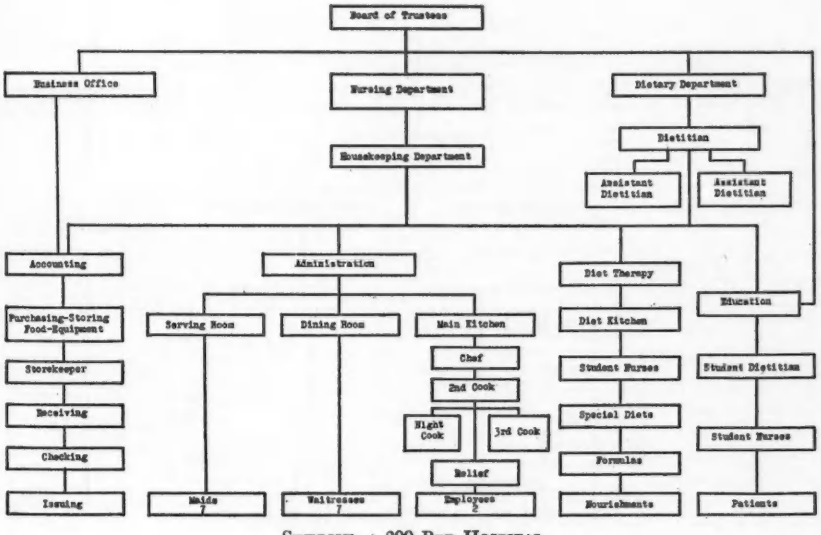
KING COUNTY UNIT 1, A 445 BED HOSPITAL



KING COUNTY UNIT 2, A 260 BED HOSPITAL



VIRGINIA MASON, A 145 BED HOSPITAL



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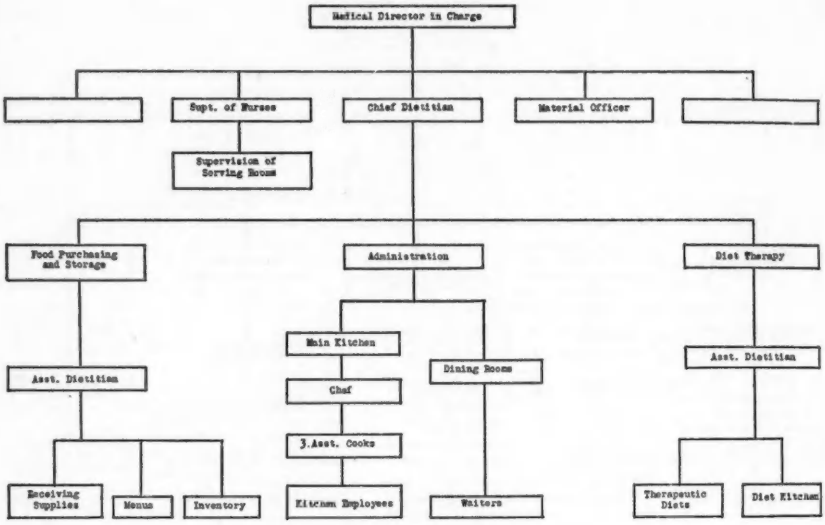

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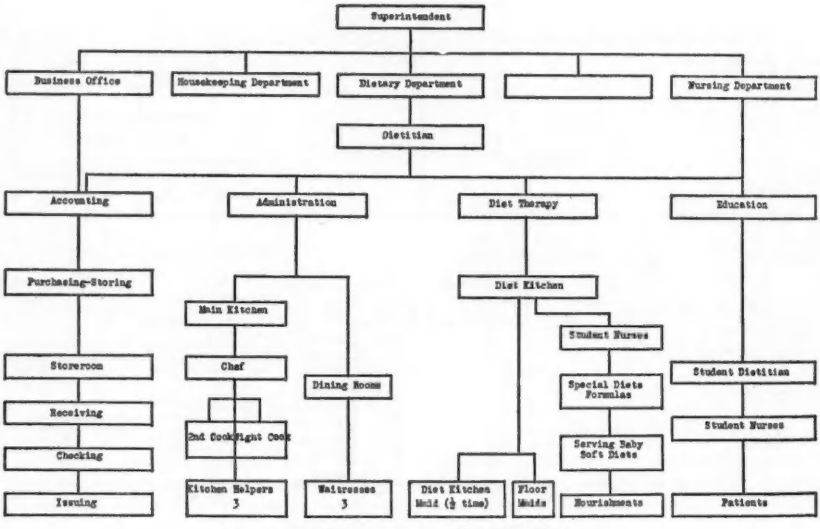
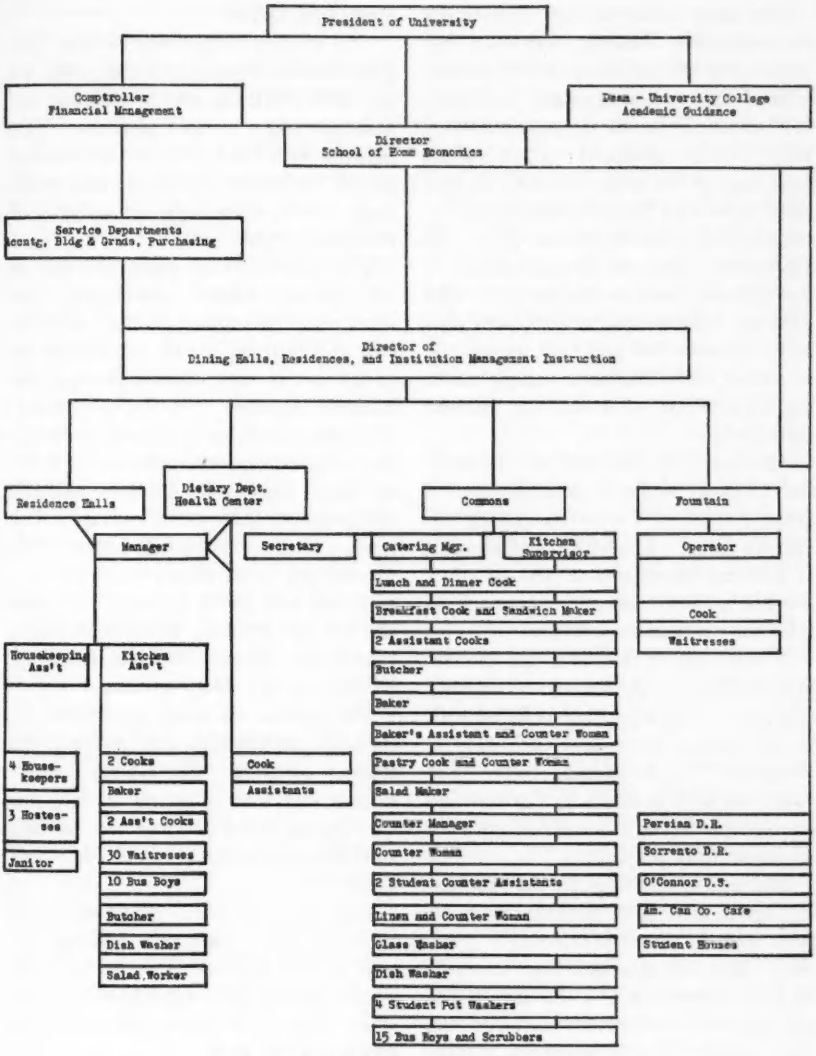


CHILDREN'S ORTHOPEDIC, A 125 BED HOSPITAL



UNIVERSITY OF WASHINGTON, FOOD SERVICE

control of the dietary and housekeeping department head.

The clerk in the dietary department is a graduate dietitian, therefore her position in the organization is comparable to that of the assistant dietitians.

The food service for the patients in the King County Hospital unit 1 differs from that of the other hospitals in that there is no diet kitchen maintained for the preparation of the special diets. All therapeutic diets are a modification of the general, soft or liquid diet. The food for each floor is weighed and sent to the floor by hot and cold trucks. It is served from the floor pantry under the observation of a staff or student dietitian.

All waste from the trays is returned to the kitchen, weighed, charted, and a graph posted each week comparing the various floors. The weights of servings of food are standardized, and an effort is made to order accurately enough to keep the waste at a minimum.

A chart system is used in the kitchen organization for the employees' working schedules. Each position is listed with its duties and hours and each duty is designated by a different color. The chart can be referred to by the dietitian or employee in the event of dispute as to duties or time schedule.

The food is purchased by the purchasing agent after a requisition has been presented by the administrative dietitian. Bids are presented once a month by local companies and the lowest bidder, quality considered, receives the food contract for a period of one month. The bidder must meet certain government food standards as to quality of the goods.

The staff and employees of the hospital are served in the hospital cafeteria which is divided into two sections with the employees served in one and the staff in the other.

The dietary department in the Virginia Mason Hospital is controlled by the chief dietitian, who is assigned one assistant and a student dietitian. This hospital is affiliated with the training course for student dietitians and trains eight students throughout the year at different periods.

The chief dietitian plans the menus, takes care of all food purchasing, and supervises the dining rooms, kitchen, and diet kitchen. The purchasing of equipment is requisitioned through the business manager. The chief dietitian, with the aid of her assistant, instructs the nurses in food and nutrition and diet therapy. Classes for diabetic patients are routinely held for a period of one week. During this period of instruction the dietary department has two one-hour and two half-hour demonstrations and lectures, given by the assistant dietitian or the student dietitian under the guidance of the chief dietitian.

The special diets are supervised by the assistant dietitian with the aid of the student dietitian. The hospital maintains a diet kitchen where all food for the special diets is prepared by the student nurses with the aid of a full-time maid.

The patients' food is served from serving rooms on each floor, having been sent to the various floors by a dumb waiter system and transferred to the steam table. The trays are set up and served by the maids on the floors and carried by the student nurses directly from the serving room. All special diets are set up and served from one floor under the supervision of the assistant or the student dietitian.

The staff is served by maids in the staff dining room. The employees serve themselves from the kitchen and have their own dining room.

Infant formulas are prepared by the nursing department on the maternity floor.

The food purchasing is directed by the chief dietitian and all accounting is controlled by the business office.

The Swedish Hospital dietary staff is composed of the chief dietitian and two assistants. This hospital is affiliated with the training course for student dietitians, and aids in the training of eight students during the year.

The chief dietitian plans the menus, orders food and equipment, supervises the kitchen and dining rooms, and instructs the student dietitians. With one assistant, she conducts the classes in diet therapy for the student nurses.

The assistant dietitians supervise the diet kitchen, take charge of the therapeutic diets, carry on patient instruction, supervise tray service and making of formulas, and instruct student nurses in the diet kitchen. The special diets and formulas are prepared in the diet kitchen by the student nurses.

The tray service is centralized at the Swedish Hospital. All trays are set up in the serving room near the kitchen. Hot food is brought from the kitchen to the serving room and served from the steam tables. Salads are placed on trays in the ice box and brought out as needed. Each maid in the serving line is responsible for certain foods on the tray. The completed trays are then checked by the dietitian.

The patients at the Swedish Hospital have a selective menu which is distributed a day ahead and returned to the dietary office. Each menu order, labeled with the patient's name, is placed on the tray as a check in serving. The trays are carried by the nurses on each floor from a serving pantry. The selective menu has been found to eliminate excess special catering and food waste, and pleases the patient. The staff and employees have dining room service in their respective dining rooms.

The storekeeper holds a full-time position. He keeps a perpetual inventory of the stores; receives, checks and issues supplies; and keeps the chief dietitian fully informed as to the supply on hand. The food and equipment accounting is done by the chief dietitian who submits a monthly report to the board of trustees.

The dietary department at the Marine Hospital is under the medical director. Its organization varies from the other hospitals due to the type of hospital and the services rendered. There is no training school for nurses, therefore there is no nursing education in dietetics, nor do they have a student dietitian training course. Many of the patients are ambulatory and able to eat in the dining rooms or in the patients' cafeteria on the main floor.

The chief dietitian is assisted by two dietitians. The chief plans the menus and supervises the kitchen and dining rooms. One assistant supervises the therapeutic diets and visits the patients; the other receives supplies and directs the menus and the inventory. The special diets are set up and checked in the kitchen by the assistant dietitian and sent to the floors by a dumb waiter system. Bed patients are served from the serving rooms on the floors. Those who eat in the dining rooms on the floors are served from the serving room adjoining the dining room. The cafeteria provided for the ambulatory patients is

likewise used by the employees, but at a different time. The staff has dining room service.

The Children's Orthopedic Hospital dietary department serves an average of 125 children. The one dietitian in charge has no assistance other than that of student dietitians who come for a period of one month's training. The dietitian directs the administration of the kitchen and dining rooms, the preparation of therapeutic diets in the diet kitchen, and instructs the student dietitians and student nurses, including classes in child nutrition for the student nurses. She also handles the purchasing and part of the accounting for the dietary department.

Food is served from trucks sent to the floors. The staff is served cafeteria style from the kitchen with maid service for the second course. There are three student nurses in the diet kitchen. One is in charge of the special diets and the baby formulas. The second takes care of the baby soft trays, and the third prepares the nourishments. There is also a maid on half-time duty in the diet kitchen.

Due to the fact that the orthopedic hospital is a philanthropic institution, considerable food is donated by organizations, private business concerns, and individuals. Food thus donated reduces the total food cost approximately 10.5 per cent.

In comparing the five hospitals studied, one finds a similarity of organization throughout. Each department is responsible to the administrative director or directors of the hospital. The duties of each dietary department include the purchasing of food and equipment, administration, diet therapy and education, with the exception of the Marine Hospital where no teaching is required. The King County Hospital units include another department, that of housekeeping, under the control of the dietary department.

We have shown how these five hospital dietary departments function, each with a different dietary organization. It may be of interest to contrast the organization of an entirely different type of food service, that of the University of Washington.

Food service throughout the university is under the direction of the School of Home Economics, with the director of the dining halls, residences and institution management instruction, in charge. She therefore controls the food service in the Residence Halls, Dietary Department Health Center, the Commons and the Fountain.

In the Residence Halls, a manager oversees the food service and the housekeeping, plans the menus, conducts the purchasing, and directs the kitchen and housekeeping employees. The Commons has a catering manager and a kitchen supervisor who assist in the control of food service from this unit. A cafeteria offers an excellent choice of food at a minimum cost. A club luncheon at fifteen cents, including an entrée, vegetable, dessert and choice of beverage, has proved popular and profitable. The Fountain is in charge of an operator with the assistance of a cook and waitresses.

Within this large organization a commercial training school is maintained for graduate or undergraduate students of institution management. There are five affiliations which are listed on the chart.

EDITORIAL

Anna M. Tracy, Fifteenth President of the American Dietetic Association

"When is a woman great?" Such was the title of an article by Anna Steese Richardson, writing in the *Woman's Home Companion* for April 1936. The lists of women who have been so designated, to Mrs. Richardson, seemed a bit puzzling. For what is the first requisite of greatness—is it material or professional success; frequent or conspicuous mention on the front page; specific technical or professional contribution to the physical, economic or social progress of the nation; or is it leadership?

Often the truly great among women is she who, unheralded and unsung, is giving her contribution to society. More often than not she shrinks from publicity and headlines, and most often her interests are those that lie close to the home. At the head of her list of six women in this country whom she then designates as great, Mrs. Richardson cites two: one who offered the physical comfort and cultural atmosphere of her own home to several children and young people; the other, a woman whose way of life lay outside the limits of the home, yet whose responsibilities are representative of those of the home, multiplied many times. Mrs. Richardson referred here to Anna M. Tracy.

Miss Tracy's job is to prepare menus for 1500 young women, three times daily during the school year. She presides over huge kitchens, modern and electrically equipped; she supervises a well trained staff of over fifty regular employees in the food service department and one hundred student waitresses. She orders, not in pounds, but in hundreds of pounds and in tons. But she goes far beyond the mere doing of the mechanics of her job, efficiently and well. For her social standards rise to those of her production standards and her mechanical equipment.

To this college "home", the Florida State College for Women, come all sorts of young women from all sorts of homes, some from "sordid lumber camps, dull farms, desolate foothill towns, all seeking education, the opportunities and pleasures for which youth yearns". Aside from her care for their physical needs with regard to food, Miss Tracy must contribute to their social development, for at meal-time these 1500 young women acquire new social graces, tolerance in conversation, and appreciation of their social opportunities and of the niceties of table service. In the great Gothic style dining hall, the students are served *en famille* at ten-seat tables, the one at the head acting as hostess. Like the "graduates" of the private home to which Mrs. Richardson referred, many of these young women likewise go into well managed new homes, illumined by the example under which they have lived during a period of their formative years.

From her glass-walled office off the main entrance to the dining room, and assisted by three staff and four student dietitians, Miss Tracy keeps an eye on all proceedings, and interviews salesmen, students and employees. Not the least of her duties is that of the special diets and infirmary food service. Directly responsible to the president of the college, Miss Tracy bears the titles of dietitian and associate professor in institu-

tion economics, and has held her present position since 1922. She directs one of the four courses approved by the American Dietetic Association for administrative food work.

A graduate of Battle Creek College where she studied under Lenna F. Cooper, Miss Tracy then attended the University of Chicago from which she graduated with the bachelor of philosophy degree, and where her scholastic attainments earned her the Phi Beta Kappa key. Her wide experience as hospital dietitian and teacher of institution management and home economics, as well as her administrative food work in the government hotels at Washington, D. C. following the war, gives her an excellent background for the arduous responsibilities as executive officer of the American Dietetic Association.

Miss Tracy is a charter member of the Florida Academy of Science and the Florida Dietetic Association, of which she was the first president. She is a former president of the Florida Home Economics Association and chairman of what is now the Home Economics in Institution Administration section of the American Home Economics Association. Her ability along administrative lines was further indicated by her appointment as chairman of the Administration Section of the American Dietetic Association for three years. As an administrator, Anna M. Tracy reflects the excellent precepts of a most capable teacher, M. Faith McAuley. As a woman, she typifies all that is gracious, kindly and beautiful in womanhood. The Association, again, is most fortunate in its choice of a leader.

A Dietitian in a World-Famed Hotel

The employment in the hotel field of women trained in foods and nutrition is a comparatively new development. Since the modern hotel must offer all the refinements of living characteristic of the well organized, representative home of today, it is not surprising that women are gradually taking their place in the hotel industry. The woman's point of view with regard to sanitation, furnishings, and comforts of living, has been recognized as an asset in present-day hotel management. More recently, the hotel executive is beginning to realize that he must turn to women managers and women cooks if he wishes to meet the demand for simple homelike food. Perhaps no woman can surpass or even approach the skill of the hotel chef in the making of soups, sauces and entrées; but people who eat hotel food for any length of time become weary of what might be termed typical hotel fare and crave the dishes of their childhood.

As a result of this demand, Mr. Lucius Boomer, president of the Waldorf-Astoria Corporation and a man of wide experience in the field, decided to organize a special kitchen in the Waldorf to be known as the Home Kitchen. In 1931 he engaged Mrs. Rebekah S. Hufcut to supervise this kitchen. Mrs. Hufcut was admirably suited to the task for she had studied at Pratt Institute and graduated from Teachers College with the B.S. degree. Her experience in foods and cookery began in a typical American small town, her birthplace, where housewives took pride in their cooking, and progressed through the teaching of kosher cookery in a Hebrew school, the directing of a Y. M. C. A. cafeteria, the

editing of a food column on a metropolitan newspaper, and food demonstrating and lecturing. Before her work at the Waldorf-Astoria, she served as a menu supervisor for the Savarins, a noted restaurant system of New York City.

The Waldorf-Astoria Home Kitchen employs only women cooks and provides the simple dishes treasured in the memory of many and still found in innumerable homes. The hotel lists these dishes on the room service menu and in addition prepares a great many special dishes ordered by patrons. In this magnificent and ultra-luxurious hotel, the guests, weary of the palate-surfeiting intricacies of the hotel chef, may turn to the humble dishes of the American village or farmhouse—chicken fricassee, lamb stew so simply prepared that the flavor of lamb and vegetables predominates over the herbs and spices, pot roast as our mothers used to cook it, cod fish cakes like those served on Sunday morning in a New England home, and baked beans, that good old Saturday night standby.

Nor is the guest from the hinterland or from foreign countries neglected. Typical offerings of regional cookery are available. Patrons from India who observe strict dietary rules are visited by Mrs. Hufcut, who learns their requirements and sees that the food is prepared according to their wishes. Both the patron from the South who wants his corn bread thin and unsweetened, and the one from the North who wants it thick and slightly sweet, get what they desire. The chowder devotee from Boston has his made with a milk basis; while the New Yorker, who scorns the Boston version, may have his chowder pink with tomatoes. No matter what whim or need the guest may express, the Waldorf-Astoria Home Kitchen fills the order.

Today, the large hotels provide a hotel physician, nurses and facilities for the emergency care of the sick, but only occasionally do they include the service of a dietitian. Soon after Mrs. Hufcut was engaged to supervise the Home Kitchen, the need for a diet service became apparent. The patron of the Waldorf-Astoria who is ill or slightly indisposed may now have simple dishes prepared without salt, or sugar, or with other modifications, or he may have his physician's dietary prescription filled in the diet kitchen. Mrs. Hufcut is not only trained in practical cookery, but is a graduate of a nutrition course under Dr. Mary Swartz Rose of Teachers College.

These various services of the Waldorf-Astoria are further described in attractive booklets available to the guests. One of these, entitled "Home Cooking Recipes", gives the complete recipe and method of preparing some of the more popular Early American and regional dishes and includes replicas of recipes appearing in old cook-books. Another, entitled "Home Cooking in The Waldorf-Astoria", suggests that the guest may order any favorite dish or consult the home cooking supervisor about his menu preferences. Thus his jaded appetite is stirred by tempting offerings such as "Ham Hock and Cabbage", "Lamb Stew with Dumplings", "Carolina Chicken Pie", "Pennsylvania Dutch Apple Cake", and "Lobster Salad" like that served Sunday nights at Marblehead.

The diet booklet of the hotel offers the guest a pocket edition of a course in nutrition and includes special diets as well as menus for children of various ages. Needless to say, the booklet does not neglect the calorie counters.

Unquestionably, Mrs. Hufcut has demonstrated that the trained woman has a place in the modern hotel. She, and the few others in like activities, merely foreshadow, we hope, the near future when the dietitian will be a standard requirement in the up-to-date hotel.

CURRENT COMMENT

Los Angeles in 1939

August 27, 1939, may seem very far ahead, but it is not too soon to start making plans for your 1939 trip to California, and the annual meeting of the American Dietetic Association. The date is August 27–31, and the place, the Ambassador Hotel, Los Angeles. The month of August was selected so that members might combine attendance at the meeting with their vacation.

The vacation possibilities in California are many. Some are listed here so that you can plan how to spend your time while on the Pacific Coast.

Los Angeles, the convention city, was founded in 1781 and given the charming name of *El Pueblo de Nuestra Senora La Reina de Los Angeles*—the Village of Our Lady, the Queen of the Angels. The romance and traditions of Old Spain help to make Los Angeles a charmed land.

Trips are being planned to Santa Catalina Island, the "Play Isle of the Pacific"; Santa Barbara, the year round playground and residential resort; and San Diego, including Coronado, La Jolla and Tia Juana, Mexico.

A "Day in San Francisco" prior to the meeting in Los Angeles is being planned so that members can visit the Golden Gate International Exposition at Treasure Island, a man-made island in the middle of the bay between San Francisco and Oakland, and also see the many places of interest in San Francisco. Among these are the famous San Francisco-Oakland Bay Bridge, the longest in the world; the Golden Gate Bridge which has the longest single span ever erected; the Presidio, Fisherman's Wharf; Chinatown and the sidewalk flower shops.

On the way south to Los Angeles some may wish to stop at Carmel and Del Monte, or Yosemite and Sequoia National Parks. Each offers a delightful place to spend a vacation.

The possibility of seeing a large part of the western states is another inducement. Transportation may be arranged over a number of railroad lines so that many different places may be visited. One of four lines can be taken via the North so that Jasper National Park, Banff and Lake Louise, Glacier National Park or Yellowstone National Park can be seen. From Seattle the beautiful Pacific Northwest can be visited, including Vancouver, Victoria, Portland, Ranier National Park, Columbia River Highway, and many other points of interest.

From the East to San Francisco one railroad travels the Feather River Canyon; a second, through Great Salt Lake; and a third, through the Royal Gorge and American River Canyon to Reno and beautiful Lake Tahoe.

Southern lines go to Grand Canyon, Brice and Zion Parks, and Boulder Dam, or further south to New Orleans. Combination water and rail trips can be arranged by sailing from New York to New Orleans or Galveston, thence proceeding to Los Angeles by train. And nothing could be more delightful than a trip by way of the Panama Canal. Those fortunate to have sufficient time might go to Alaska or Hawaii.

With so much to see, we must be careful not to place the meeting, itself, in the background. Under the capable chairmanship of Mary Northrop, the program promises to be interesting and worthwhile.

The Ambassador Hotel, the convention headquarters, is quite different from the ordinary hotel. It is surrounded by its own 22-acre park in the heart of the Wilshire district, just fifteen minutes by bus or street car from the center of the business district. There are beautiful gardens, an outdoor pool with sand beach and cabanas, a pitch and putt golf course, and tennis courts. In this hotel are the world famous Cocoanut Grove where the welcoming luncheon will be held, a theater, a miniature city of thirty-five smart shops, a bank and a post office.

The convention rates offered by the hotel are as follows: $4.00 per day, per person, two in a room with twin beds and bath; $6.00 per day, room and bath, single; $3.50 per day, per person, four in two connecting rooms with bath between, individual beds; $3.25 per day, per person, three in a room with bath and individual beds. It is suggested that members plan on sharing rooms with friends, as by doing so more persons can be accommodated and the rates would be lower. Since many visitors are expected in California in 1939 because of the Golden Gate Exposition, it is of the utmost importance that reservations be made *now*.

The Ambassador Hotel will make arrangements in any one of the numerous apartment hotels within a radius of two blocks of the hotel for those who wish less expensive accommodations. Those desiring information on these accommodations may write directly to the Ambassador.

The California Dietetic Association is proud that the American Dietetic Association accepted its invitation to meet in Los Angeles and is looking forward to welcoming the members to California. So plan to spend your 1939 vacation on the Pacific Coast and send in your hotel reservations *now*.—KATHARINE BROWN, *Chairman, Local Arrangements, 511 S. Bonnie Brae, Los Angeles.*

CORRECTIVE DIETS FOR COLLEGE STUDENTS

Because the majority of college students do not require therapeutic diets, few college dining halls or cafeterias offer any diet therapy service for their clientele. The student requiring such service usually secures permission from the college physician to eat elsewhere. Too frequently in these cases the meals are selected on a basis of elimination. Such a procedure, complicated by food prejudices and economic pressure, may result in a deficient diet which aggravates rather than corrects the physical condition of the student.

Recognizing the fact that college students may require diet therapy service and that the logical place to secure it is in the college dining hall under trained

supervision, Florida State College for Women has maintained such a service for the past nine years.

This service is a cooperative project in charge of the college physician and a therapeutic dietitian who is a member of the college dining hall staff. Students requesting special diet service are referred to the college physician who prescribes the diet indicated or may approve the diet prescription of a family physician. The dietitian discusses with the student the nature and service of the diet, emphasizing the fact that a special diet is a variation of the normal diet in quantity or method of preparation and that the return to a normal diet is the chief objective of the service. This is in line with the belief that "the eating of food should be the expression of good health and not an avenue back to it".

Tray service is provided for most of the special diet cases, the meals including any suitable item on the regular menu in addition to specially prepared foods. The student carries her own tray from the diet pantry to the dining hall and joins her group at the table.

Table service is provided for groups whose diets are similar, such as the low calorie and acne cases. Only foods allowed on the diets are served at these tables, thereby removing the element of temptation and establishing more easily the desired food habits. High calorie prescriptions are taken care of by providing between meal lunches and additional milk at lunch time. Weights are checked weekly and all students are encouraged to confer with the dietitian frequently so that the various aspects of the diet may be discussed in detail. The ultimate aim of all dietetic service is the education of the individual in the intelligent selection of food and every means should be provided to make this possible.

A small fee, in addition to the regular cost of board, is charged for this corrective diet service. A total of 154 students availed themselves of this service during the past college year.

The service has made it possible for a diabetic to secure her college degree; an overweight student to lose 45 pounds and regain her figure while maintaining her health; an underweight to gain 15 pounds and qualify for nurses' training; and for a large number of others to correct conditions in which diet therapy could be used to advantage.—Lola Schmidt, *Assistant Dietitian, Florida State College for Women.*

Student Dietitians' Daily Schedule and Observation Reports

One feature of a student dietitian's training at the Women's Educational and Industrial Union is the composing and typing of her work schedule and observations for the day. This includes the definite time spent for each task, the procedure and the comparison of her speed of work with those of the employees. The observation report comprises what she has seen or heard while on duty. She notes, for example, that the Giant cake filler is made of heavy drawn steel, with a lever plunger, and has a four-quart capacity. She notes, also, the name of the manufacturer. All this increases her knowledge as well as her powers of observation.

When writing these reports the student finds it necessary to concentrate on the day's work, with the result that she forms a complete picture of her tasks in relation to the production of the de-

partment as a whole. She grasps the duties of the employees and learns their special techniques. The practice of recording her own work schedules gives her the background essential in making a job analysis and in planning specific duties for cook or baker should she become a head dietitian.

The supervisor of the training course, on going over the reports, learns exactly what the student dietitian is accomplishing in the assigned department. She can determine, for instance, whether the student noticed that there were twenty half slices of pineapple in a number two can when she made the pineapple filling that morning. The reports are also checked by the supervisor to see if the student is being given the opportunity to gain the experience and knowledge of the department as previously planned with the director.

At first the student may not be able to see the advantages of these daily requirements. But as she refers again and again to her own copies of these reports, she realizes the value of having specific information at hand with which to compute the cost of cheese, bread or a salad dressing. And so from a student's viewpoint there are many advantages in making such reports. It is an objective that we, as student dietitians, feel could profitably be given considerable thought and practice in all types of approved training courses.—MARY D. STOCKTON, *Pennsylvania State College 1937, Administrative Student Dietitian, Women's Educational and Industrial Union, Boston, 1937–38.*

"THE FEAST OF FIVE TABLES"

Perhaps it was a touch of the old pioneer spirit that prompted thirteen members of the A.D.A. comprising the South Texas Dietetic Association to undertake in 1935 the organization of a state group within the vast territory that is Texas, for at the time only fifty-five members resided in this state.

It must have been the same progressive spirit that prompted the original and ambitious thirteen to invite Mary de Garmo Bryan to make the trip from New York to Texas as guest speaker for the second annual convention of the newly organized state association in April 1936. At the time the invitation was extended and accepted, there were no visible means of paying expenses for even a nearby speaker. All this brings us to the story of the "Feast of Five Tables."

The aim of our organization was to foster stimulating meetings and avoid professional boredom and stagnation. The first year it was sufficient that we meet, get acquainted, and exchange ideas. And while fundamentally our association will always be for that purpose, we who were the founders of the state group realized that if we were to be an active part of the national group, so far as possible we would have to bring the national association to our door. For we are far removed from the usual annual meeting place of the A.D.A. We realized further that since we were asking even our state members to come from distant points, we had to offer them new and worthwhile ideas at each state meeting.

It was readily agreed that an out-of-state speaker at yearly gatherings would be of decided help in furthering our aims. Since we have already implied that we were venturesome to the extent of recognizing no obstacle, we set about bringing the mountain to Mahomet.

To meet the necessary expense entailed, I offered a suggestion. When I was a child, the local church, of which my family were the proverbial pillars, was always in search of a new money-making scheme. When the cake sales and oyster suppers had had their day, a member suggested a rather novel buffet supper which she called the "Feast of Five Tables". It proved to be entertaining and profitable. The dietitians comprising our small group were enthusiastically in favor of the suggestion and we planned our initial feast.

First we sent out invitations with a catchy little jingle such as:

Five tables heaped with food for serving,
To those whose purse makes them deserving,
One-half dollar puts you in line,
To donate more makes us feel fine.

Attached to each invitation was a small silk bag. The jingle invited the recipient to put in a certain number of coins, a minimum sum being set by the hostesses with the maximum left to the generosity of the guest.

The hostesses in each instance are divided into five groups, each responsible for a buffet table done entirely in one color, and from which all the food for one course is served. The first table may be in yellow tones—flowers, candles, dishes and food. From this is served the first course; a fruit cup in orange baskets, frozen yellow tomato juice, cheese balls, egg canapes, and so on.

The second table, or the main course, appears all in brown. You can picture the devilled crabs, baked beans in brown pots, peach pickles, hot browned new potatoes. One year an ecru lace cloth over a polished table served as background. A long sectional amber plaque outlined with brown pansies and centered with a bronze figure holding aloft an urn overflowing with the same flowers, served as a centerpiece. The green table for salads is the easiest to arrange, while the pink table for desserts is always pleasing. The last is the white table arranged for serving sweets. This can be made most effective, with snowy embroidery and lace cloth, white figurines and an interesting arrangement of white tulips.

The companies from whom we purchase foods suggested that in the interests of advertising they would furnish the necessary food; the room where the feast is held is given without charge and each dietitian takes care of her own table decorations, so the entire income is net profit.

As guests arrive they are greeted at the door by the president. Their tickets are taken and they are presented with a small folder giving the history and purpose of the dinner, together with the names of companies donating food and the items which they have donated. Each guest is given a tray and proceeds along the line of five tables, making selections from the attractive viands offered.

The number attending has increased each year and the date is looked forward to with the keenest anticipation. We find, as well, that the public is much interested in what a group of "food experts" have to offer. These festivities, and the inspirational addresses of the three out-of-state guests whom we have had to date, have helped materially to mold our state association into a fine, harmonious fellowship.—MARY E. SMITH, *Memorial Hospital, Houston, Texas.*

BOOK REVIEWS

A Nutrition Manual. By Henrietta C. Fleck. Women's College, University of Delaware. Ann Arbor, Michigan: Edwards Bros. Inc., 1938, pp. 180. Price $1.75.

This manual is planned with the following purposes: to help students apply nutrition in their own lives; to help them in community nutrition problems; to make them aware of the problems confronting the public—such as the means used in presenting nutrition education, and common fallacies and the popular fads in nutrition; and to make them familiar with the work of leading authorities in the field of nutrition.

The manual is set up with forty-three problems. Of these, twenty-four refer to general nutrition; four, to pregnancy, lactation and infant feeding; twelve, to diet in disease; one, to fads and fallacies; one, to nutrition education; and one to the teaching of nutrition. The balance is given over to a bibliography.

Each problem is arranged with leading questions followed by references and completed with an assignment for outside work.

The whole manual is concise and well prepared and presents quite a comprehensive study. It should be useful in teaching. The references are well selected and the study questions are very well put.—EMMA L. FEENEY, *Pratt Institute, Brooklyn, N. Y.*

Finger-tip Control. By Homemakers' Bureau Safeway Stores, Inc. Julia Lee Wright, director. Box 660, Oakland, California: 1938, pp. 28. Price twenty-five cents.

Dietitians who want to organize the wealth of clippings, recipes and other source materials they have been saving in a drawer for years, will gratefully welcome this manual covering the important phases and problems of filing material concerning culinary interests. The author, who is a director of the Safeway Stores Homemakers Bureau of Oakland, California, had collected nearly a ton of material, booklets, pamphlets, and so on. Her system worked as long as she used it herself but as her department grew, she found that it needed better organization.

The system outlined resulted from the suggestions of a trained librarian who now has charge of Mrs. Wright's library. The contents of this helpful folio include subject headings for food files; methods of preparing recipe card files for testing kitchen and bureau library; information and clipping files; regular services; pamphlet collection; books, classification and cataloging; and an extensive list of sources for clippings and pamphlets, including magazines, trade journals, government agencies and food and equipment companies.

Essentials of Chemistry with Laboratory Manual. Third Edition. By Gretchen O. Luros and Florence Oram. Jean Broadhurst, Science Advisor. Philadelphia: J. B. Lippincott Company, 1938, pp. 536. Price $3.00.

This is one of the many helpful Lippincott references and texts for use in schools of nursing. It is designed to present the basic principles of chemistry and their practical application in everyday life and nursing procedures. To keep pace with the newer developments in chemistry and medical procedure as well as nursing, it has been necessary to revise and rewrite the book completely.

The authors have included the unit plan recommended in "A Curriculum Guide for Schools of Nursing", and have arranged their subject matter into 14 units, for each of which a motivating introduction has been included. The "Preview" which supplants the more customary "Chapter Outline"; the "Introduction" which links the new material with that previously studied; the summary, included at the end of each unit to round out and thoroughly fix the more salient points under discussion in the minds of the students; and the essay and newer type questions included at the end of each unit; reflect the more advanced method of teaching in schools of nursing. The subject matter is suited to students who have had a beginning course in chemistry, and yet is simple enough to be understood by the student who has had no chemical background. The new unit arrangement is also carried out in a laboratory manual which has been added to this edition.

Social Hygiene Nursing Techniques. A Manual of Procedure in the Diagnosis, Treatment and Public Health Control of Syphilis

and Gonorrhea. By Nadine Geitz, M.A., R.N. New York: The American Social Hygiene Association, 1938, pp. 82. Price 25 cents and five cents postage.

Published in response to many requests and to meet a definite need, this nurse's manual on social hygiene is recommended by the American Social Hygiene Association for all members of the nursing profession whose work brings them in contact with venereal disease patients. The author states that her material is largely the result of her experience in preparing a manual for nurses in the New York City Department of Health.

Ten concise chapters cover the history of venereal disease, legal aspects in its control, administration and clinical procedures in a clinic, the cooperation of a health department with other official agencies, and a condensed exposition of the broad social hygiene program as it is being carried on today.

There is also a valuable appendix illustrating suggested forms for charts in a venereal disease clinic or health service. A list of reference materials and public education aids available from the American Social Hygiene Association is included.

CURRENT LITERATURE

American Journal of Digestive Diseases

Vol. 5, September 1938

*Vitamins in relation to gastro-intestinal diseases. M. G. Vorhaus.—p. 405.
*Studies on the parallel action of vitamin C and calcium. S. L. Ruskin.—p. 408.
*The relationship of the diet to the self-regulatory defense mechanism. 1. Hydrogen-ion concentration and bacterial flora. N. P. Sullivan and I. A. Manville.—p. 428.
*Hunger, appetite and thirst. Editorial.—p. 436.
*The strange ability of animals to choose a balanced diet. Editorial.—p. 437.

VITAMIN IN GASTRO-INTESTINAL DISEASES. The awareness of avitaminoses may often help in discovering pre-clinical stages of vitamin deficiencies. Ill health due to lack of vitamins may be the result of faulty diet, but even with a normal diet deficiency states may develop.

PARALLEL ACTION OF VITAMIN C AND CALCIUM. The parallel physiologic action of calcium and vitamin C has been manifested in many ways. Chemical properties of cevitamic acid indicate that it is the stabilizing agent for calcium in the body. The great solubility, absorbability, and calcium action shown by calcium cevitamate indicate a step forward in calcium therapy.

DIET AND DEFENSE MECHANISM. The addition of dehydrated apple to the diet of rabbits increased the hydrogen-ion concentration in the intestines, changed the intestinal flora to one in which the acidophilic organisms predominated and reduced the number of gas-producing organisms. The addition of apple to the diet made no difference in the number of cellulose-splitting organisms present.

HUNGER, APPETITE AND THIRST. Hunger is not due in the most part to the need of replenishing the body's food stores. A psychic element differentiates appetite from hunger. Thirst is not always due to a dryness of the pharyngeal and esophageal membranes. Recent studies have shown that a thirsty animal drinks exactly what is required for its metabolic needs.

ABILITY OF ANIMALS TO CHOOSE DIET. Animals seem to have a certain sense or appetite for the foods that are necessary for a well balanced diet. They recognize and select the foods which they need to supplement a defective diet.

American Journal of Diseases of Children

Vol. 56, August 1938

*Advantages of adding apple to milk formulas. F. J. Reithel and I. A. Manville.—p. 235.
*Effect of a milk supplement on the physical status of institutional children. 1. Growth in height and in weight. L. J. Roberts, R. Blair, B. Lenning and M. Scott.—p. 287.

APPLE WITH MILK FORMULAS. The addition of apple to milk accomplishes two purposes—the pH is lowered and a soft curd is produced. It is advisable to use such mixtures (4 to 5 per cent) in infant feeding in cases in which cow's milk is digested with difficulty.

MILK SUPPLEMENT AND GROWTH. The growth of three groups of institutional children, each consisting of 36 children, was followed throughout a calendar year. One group remained on the usual diet; one received the equivalent of an additional pint of whole milk in the form of evaporated milk; and one a like amount of irradiated evaporated milk. By all methods of comparison the growth of the children given a supplement exceeded that of the controls.

American Journal of Nursing

Vol. 38, September 1938

*Preserving maternal milk. C. H. Laws and E. G. Skelley.—p. 1003.

PRESERVING MATERNAL MILK. Since the fluctuation between the supply and demand for maternal milk is definitely seasonal, some method of preservation is necessary. The quick freezing process is most desirable. Pasteurized human milk is put in sterile molds and surrounded with dry ice. The milk separates from the molds at low temperatures forming wafers just the size and appearance of peppermint wafers. The milk will keep indefinitely at 15° below zero. Quick-frozen milk loses none of its vitamin content.

American Journal of Public Health

Vol. 28, September 1938

*Handicaps in the normal growth and development of rural negro children. H. A. Poindexter.—p. 1048.
A critical discussion of some methods and standards for certified milk. J. H. Brown.—p. 1053.
*Present status of vitamin milks. E. V. McCollum.—p. 1069.
*The new federal laws relating to foods, drugs, and cosmetics. Editorial.—p. 1114.

HANDICAPS TO GROWTH OF RURAL NEGRO CHILDREN. Anemia due to non-infectious malnutrition, syphilis, malaria and hookworm infestation is commonly found in rural negro children. Ignorance, poverty and inadequate social agencies are responsible for these conditions. An efficient local school teacher as "key" person under the supervision of official agencies and with the cooperation of the public health nurse and farm demonstration agent can do much to remedy this situation.

VITAMIN MILKS. The vitaminization of milks with respect to D is of established value. Vitamin D milk is very useful in safeguarding the health of pregnant and lactating women. Milk distributors and health officials will do well to delay offering any other kinds of fortified milks to the public until the medical profession asks for them.

NEW FEDERAL LAW. The adulteration or misbranding of any food, drug, diagnostic or therapeutic devise, or cosmetic in interstate commerce, is prohibited under the terms of the new Federal Food, Drug, and Cosmetic Act. Under misbranding is included not only false and misleading labels, but improper imitations of labels of other products, misleading containers, and in cases of foods for special dietary uses, failure to give information as to vitamin, mineral, and other dietary properties.

Baltimore Health News

Vol. 15, August 1938

*State rules adopted for food utensils.—p. 57.

Vol. 15. September 1938

*Milk in relation to public health. J. Kotleroff.—p. 67.

FOOD UTENSILS. The regulations of the Maryland State Board of Health regarding the cleansing of glasses, cups, dishes, silverware and other utensils used in places where food or drink is dispersed are stated.

MILK IN PUBLIC HEALTH. Milk is second to no other food as an item of diet, and is second only to water as a vehicle of disease transmission. Milk has been used by man for at least 6000 years. This essay on milk won the Shoemaker prize at the University of Maryland.

Bulletin of the Johns Hopkins Hospital

Vol. 63, September 1938

*Dietary protein and the regeneration of serum albumin. I. Method of assay and discussion of principles. A. A. Weech and E. Goettsch.—p. 154.
*Dietary protein and the regeneration of serum albumin. II. Comparison of the potency values of beef serum, beef muscle and casein. A. A. Weech and E. Goettsch.—p. 181.

REGENERATION OF SERUM PROTEIN. Depletion of serum albumin is induced in dogs by feeding a basal low protein diet. The diet is supplemented by adding the test food and noting the rise in albumin during a standard period. An analysis of the behavior of the globulin fraction fails to show that diet is an important factor influencing the formation of globulin. The nature of the stimulus for regeneration of serum albumin is discussed.

POTENCY VALUES OF CERTAIN PROTEINS IN SERUM PROTEIN REGENERATION. Assays of beef serum, beef muscle and casein for potency in forming serum albumin are compared. Beef serum is best, beef muscle next and casein last.

Food Research

Vol. 3, July-August 1938

*Stability of vitamin B_1 of vacuum-dried tissues during storage. A. Arnold and C. A. Elvehjem.—p. 367.
The antirachitic effect of some foods. E. F. Kohman, W. H. Eddy, M. E. White and N. H. Sanborn.—p. 373.
A note on the bioassay technique for determining available iron in foods. P. L. Harris and G. L. Poland.—p. 383.
Acid-base balance of cereals and some related food materials. J. Davidson and J. A. LeClerc.—p. 393.
*Losses of vitamin C during boiling and steaming of carrots. F. Fenton, D. K. Tressler, S. C. Camp and C. G. King.—p. 403.
*Losses of vitamin C during commercial freezing, defrosting and cooking of frosted peas. F. Fenton and D. K. Tressler.—p. 409.

ANIMAL TISSUES AS ANTINEURITICS. Rich sources of the antineuritic factor were as fol-

lows: beef kidney, 5.0 I.U. per gram; beef spleen, 2.0 I.U. per gram; beef lung, 2.0 I.U. per gram; and hog brains, 1.6 I.U. per gram (all values expressed in terms of vacuum-dried sample). Some variation in the stability of the antineuritic vitamin was observed over a storage period of 2 years in vacuum-packed cans.

CARROTS AND VITAMIN C. Fresh raw Chantenay carrots contain from .044 to .069 mg. of vitamin C per gram. Boiled sliced carrots contain 56 per cent of the original vitamin C. During a 15-minute cooking period almost two-fifths of the vitamin C present is dissolved in the water but only about 11 per cent of this is destroyed. Steamed carrots retain 86 per cent of the vitamin C.

PEAS AND VITAMIN C. The vitamin C content of one variety of peas was reduced from .25 to .18 per gram wet weight or a loss of about 38 per cent during the processes, other than actual freezing, involved in putting the peas on the market in the frosted form. The vitamin C content remained practically the same when taken immediately from storage and held in an electric refrigerator at 40 degrees F. for 16 hours, or at room temperature for one and five hours. Taken directly from storage, 59 per cent of the vitamin C was retained and 36 per cent dissolved in the cooking water. There was only a slight difference in the cooked peas which had been held in the refrigerator. The vitamin C content of the cooked frosted peas was about the same (.12 mg. per gram) as the cooked fresh peas of the same variety.

Journal of Biological Chemistry

Vol. 125, September 1938

*The utilization of pyruvic acid by the dog. E. Flock, J. L. Bollman and F. C. Mann.—p. 49.

*The effect of the intravenous injection of glucose and other substances on the concentration of potassium in the serum of the dog. E. Flock, J. L. Bollman, F. C. Mann and E. C. Kendall.—p. 57.

*A method for the determination of nicotinic acid, nicotinamide, and possibly other pyridine-like substances in human urine. S. P. Vilter, T. D. Spies and A. P. Mathews.—p. 85.

*Sterol metabolism in young white rats. II. The effect of saponifiable lipids and degree of unsaturation of lipids on the sterol metabolism of the white rat. H. C. Eckstein.—p. 99.

*Experiments with a factor promoting growth and preventing paralysis in chicks on a simplified diet. T. H. Jukes and S. H. Babcock.—p. 169.

UTILIZATION OF PYRUVIC ACID. Pyruvic acid is rapidly utilized by the dog. During this process there is an increase in lactic acid in the blood and urine. An increase also occurs after a prolonged fast, pancreatectomy, or adrenalectomy. The reduction of pyruvic acid to lactic acid does not occur in blood *in vitro*. Substances which produce a small increase in pyruvic acid, along with a larger increase in blood lactic acid, are glucose, levulose and epinephrine.

GLUCOSE EFFECT ON SERUM POTASSIUM. Administration of glucose, levulose or epinephrine produces a decrease in the concentration of potassium in the serum. Sodium lactate or sodium pyruvate produces a similar decrease, but this can be accounted for as an effect of the sodium, since sodium bicarbonate is equally effective. Decreases may be produced in some dogs even by sodium chloride.

NICOTINIC ACID IN URINE. By the application of a color reaction, for the detection of nicotinic acid, to human urine, it has been found that individuals on a normal diversified diet excrete daily color-producing substances equivalent to 20 to 50 mg. of nicotinic acid or its conjugates. Pellagrins in relapse, or in the first acute disease, or normal individuals on a diet such as pellagrins usually consume, excrete little if any color-producing nicotinic acid derivatives. Extracts of various pellagra-preventive foods are shown to contain substances giving this nicotinic acid reaction, but the method does not yet permit a quantitative determination. Since nicotinic acid or the amide appears to be one of the vitamins, the method enables one to estimate the amount of this vitamin in urine.

STEROL METABOLISM IN RAT. The quantity, as well as the chemical nature of the lipids in the diet, plays an important rôle in sterol synthesis by the white rat.

ANTIPARALYTIC FACTOR OF CHICK. Further investigations of a nutritional paralysis produced in chicks by feeding a simplified diet have been made. Manganous sulfate was added to the diet to prevent the occurrence of slipped tendons. Addition of alfalfa meal to the diet improved growth and prevented paraly-

sis. Soy-bean oil was not so active as alfalfa meal.

Journal of Clinical Investigation

Vol. 17, September 1938

*Requirements for vitamin C in man. M. Heinemann. —p. 671.

REQUIREMENTS FOR VITAMIN C. At least 0.8 mg. of ascorbic acid per kg. of body weight is used daily by healthy subjects saturated with this vitamin. Smaller amounts maintain a lower concentration in the body stores. To protect against scurvy, 0.4 mg. per kg. or even less per day appears to be sufficient. Abnormally high requirements are observed in tuberculosis. Requirements are increased to some extent in patients with ulcer.

Journal of Nutrition

Vol. 16, September 1938

*The riboflavin content of meats. W. J. Darby and P. L. Day.—p. 209.

*Further studies on dietary factors associated with nutritional muscle dystrophy. S. Morgulis, V. M. Wilder and S. H. Eppstein.—p. 219.

*The effect of a high glucose and a high fructose diet on the body weight and on the fat, glycogen, and nitrogen content of the liver and body of the albino rat. G. Bachmann, J. Haldi, W. Wynn and C. Ensor.—p. 229.

*Comparative effects of a high glucose and a high fructose diet on activity, body weight and various constituents of the liver and body of the albino rat exercising at will. J. Haldi, G. Bachmann, C. Ensor and W. Wynn. —p. 239.

*The egg-replacement value of the proteins of cereal breakfast foods, with a consideration of heat injury. J. R. Murlin, E. S. Nasset and M. E. Marsh.—p. 249.

*Multiple nature of the deficiency of blacktongue-producing diets as shown by studies on rats. O. M. Helmer and P. J. Fouts.—p. 271.

*The effect of roughage on the calcium balance in rats. W. H. Adolph, C. Wang and A. H. Smith.—p. 291.

*A comparison of ferrous and ferric iron in nutrition of the rat. E. J. Underwood.—p. 299.

FLAVIN CONTENT OF MEATS. Using the rat-growth method, organ and tissue meats were found to contain "vitamin G" biologically equivalent to crystalline riboflavin as follows: beef brisket, 1.9; lamb chops, 2.8; bacon, 0.9; cured ham, 2.0; fresh ham, 3.0 and pork liver, 23 micrograms per gram.

DIETARY FACTORS AND MUSCLE DYSTROPHY. Dietary studies on the prevention or cure of nutritional muscular dystrophy in rabbits demonstrate clearly the multiple factor nature of this deficiency disease. Of the essential nutritional factors necessary for the integrity of the skeletal muscles, the fat-soluble one is very closely associated or perhaps even identical with vitamin E and is present in the oil of wheat germ, cottonseed, corn, also in lettuce and alfalfa.

BODY CONSTITUENTS ON SUGAR DIETS. Litter mates of albino rats were fed equicaloric diets of the same composition except that one contained 68 per cent glucose, the other the same percentage of fructose. The average increase in weight was the same on both diets. The average total glycogen and nitrogen percentage content was also the same but the fat content was significantly greater in the rats on the glucose diet. The liver of the animals on the fructose diet was 22 per cent heavier probably due to an increase in the work of the organ in the metabolism of this sugar. There was no significant difference in the percentage nitrogen and glycogen content of the liver with the two diets.

ACTIVITY ON SUGAR DIETS. Spontaneous activity, gain in weight and various constituents of the body and liver have been studied on rats maintained on diets that were identical except that one contained 68 per cent glucose, one the same percentage of fructose and another a mixture of the two sugars in equal parts. Animals were allowed to exercise freely. Spontaneous activity was greatest on the glucose ration, least on fructose and intermediate on the mixture. The fat content of the body of both the glucose and fructose-fed animals was considerably less than in the corresponding non-exercise experiments. The energy required for the exercise was supplied at the expense of body fat.

EGG REPLACEMENT VALUE OF PROTEINS. Whole grain oats had the highest replacement and "biological" values, 87 and 98 respectively, when used in the diet of 10 young men. Other cereals varied from 72 down to 57. The lower rank is accounted for by the high heat to which the cereals are subjected during the process of manufacture. Digestibility was not diminished.

DEFICIENCY OF BLACKTONGUE-PRODUCING DIETS. Blacktongue-producing diets did not contain sufficient riboflavin, chick antiderma-

titis factor, or nicotinic acid to promote normal growth of rats. Since blacktongue-producing diets are similar to diets of pellagrous patients, these findings suggest that if nicotinic acid alone is added to diets of pellagrins, deficiencies due to other missing components of vitamin G (B_2) complex may develop.

ROUGHAGE AND THE CALCIUM BALANCE OF RATS. Balance experiments show that when regenerated cellulose is fed as roughage to rats on a 25 per cent intake level, there is no significant increase in the fecal output of calcium and phosphorus.

IRON IN NUTRITION OF RAT. Experiments to test the relative efficiency of ferrous and ferric iron at limited intakes in inducing growth, hemoglobin regeneration and storage of iron in the liver in the anemic rat, on a milk diet and on a lactose-free solid diet, are described. The two forms of iron were found to be equally effective, though the iron was much better utilized on the milk than on the solid diet.

Journal of the American Dental Association and Dental Cosmos

Vol. 25, September 1938

*Dietary deficiencies as a factor in the etiology of diffuse alveolar atrophy. P. E. Boyle.—p. 1436.

DIETARY DEFICIENCIES. Vitamin C deficiency is the only one which produces the characteristic features of the systemic type of pyorrhea in experimental animals. This vitamin is essential to maintenance of health of the oral tissues.

Journal of the American Medical Association

Vol. 111, September 3, 1938

*The treatment of Addison's disease. E. H. Rynearson.—p. 897.
*Levels of control in the treatment of diabetes mellitus. J. D. Boyd and R. L. Jackson.—p. 906.
*Vitamin B_1: Methods of assay and food sources. H. E. Munsell.—p. 927.

Vol. 111, September 10, 1938

*Disease of the biliary tract associated with disturbances in cholesterol metabolism. J. R. Twiss and J. H. Barnard.—p. 990.
*Human requirements for vitamin B_1. G. R. Cowgill.—p. 1009.

Vol. 111, September 17, 1938

*Recent researches in nutrition in relation to preventive medicine. N. Simmonds.—p. 1073.
*The physiology of vitamin C. C. G. King.—p. 1098.

Vol. 111, September 24, 1938

*Pellagra and nicotinic acid. R. S. Matthews.—p. 1148.
*The use of vitamin D preparations in the prevention and treatment of disease. E. A. Park.—p. 1179.

ADDISON'S DISEASE. Patients with Addison's disease show a loss of chloride and sodium from the body with a retention of potassium, an increase in urea, a marked loss of fluids and sometimes a marked hypoglycemia. A diet restricted in potassium includes only highly refined bread, cereal and sugars, the moderate use of milk, meat, fruits, vegetables, condiments and certain beverages. The vegetables and meats are cooked in large amounts of water to reduce their potassium content. An adequate diet in which potassium does not exceed 2 gm. is outlined. The addition of sodium salts and the use of an active extract of the adrenal cortex usually accompany dietary treatment.

DIABETES MELLITUS. With the use of regular insulin and a strict regimen of dietary management, an excellent level of diabetic control can be maintained, with essential freedom from glycosuria. Protamine zinc can do no more than this and in some cases has proved less effective.

VITAMIN B_1. The biologic methods of assay, chemical methods of analysis and food sources of vitamin B_1 are discussed. While vitamin B_1 is present in a wide variety of foods, there are but few foods of plant and animal origin potent in this factor. Fruits, meat, milk and eggs, which constitute good sources of vitamin B_1, are among the high cost foods and are first to be omitted in the low cost diet. More attention should be given to this vitamin.

BILIARY TRACT DISEASE. The low cholesterol diet has been found to reduce the blood cholesterol in cases of hypercholesterolemia giving symptomatic relief in most instances. This diet is indicated after cholecystectomy.

VITAMIN B_1 REQUIREMENTS. The vitamin B_1 requirement of adults is related to weight and caloric intake. Roughly, 250 to 400 I.U. per day will furnish well above the minimum requirement. For the nursing mother, the daily vitamin B_1 intake should be not less than 15 and preferably 20 I.U. per hundred calories.

Children require about 20 to 25 I.U. per hundred calories. Certain clinical factors, such as heightened metabolism, influence the vitamin B_1 requirement.

NUTRITION AND PREVENTIVE MEDICINE. The practical application of research in nutrition during the past 25 years has been not only to emphasize the value of sunshine and fresh air but also the dietary significance of meats, eggs, milk, fruits, vegetables, legumes and cereal products. Because of the results of recent researches on diet and its relation to disease conditions and from the standpoint of preventive medicine and public health, nutrition should be considered largely as a problem of economics and education.

PHYSIOLOGY OF VITAMIN C. All actively growing parts of the higher plants, all fresh green leaves, many of the algae and perhaps even bacteria contain significant quantities of vitamin C. Of the extensive number of animals studied, only man, the other primates and guinea pigs do not have the capacity to synthesize ascorbic acid. Human milk contains from 4 to 5 times more vitamin C than cow's milk.

PELLAGRA. Thirteen cases of endemic pellagra responded promptly to nicotinic acid therapy. The most gratifying observations were the rapid healing of lesions in the alimentary tract with development of an excellent appetite and gastro-intestinal function, and the spectacular disappearance of mental symptoms.

VITAMIN D PREPARATIONS. Ten forms of vitamin D are known but only two have practical importance. Vitamin D is found in only a few foods such as milk, dairy products, liver, the flesh of certain fish and eggs. Preparations available for the prevention and treatment of vitamin D deficiency are listed and discussed. This vitamin has been used in massive doses for hay fever, chronic arthritis and conditions where its toxic effects are considered beneficial. Concentrated fish liver oils are superior to the viosterol group because of the vitamin A accompaniment. For older children and adults fortified and metabolized vitamin D milks are preferred to irradiated milk as sources of vitamin D.

New York State Journal of Medicine

Vol. 38, August 1, 1938

*Relation of the public health officer and the physician in a child care program. J. D. Craig.—p. 1059.

*An appetite and weight-building tonic in chronic pulmonary tuberculosis: a study of ninety-eight cases. H. W. Leetch and J. N. Hayes.—p. 1069.

Vol. 38, September 1, 1938

The history of public health. J. R. Earp.—p. 1151.

Vol. 38, September 15, 1938

*Rheumatoid arthritis-treatment with sting of the honeybee. E. E. Nicholls.—p. 1218.

CHILD CARE PROGRAM. The health of the nation is not wholly a medical program. It involves nutrition, housing, education, and other aspects of the economic and social welfare. Any health program for the child must be based upon a knowledge of the inherent problems peculiar to a particular community.

APPETITE AND WEIGHT-BUILDING TONIC. Alcoholic extracts of garlic, cypress, eucalyptus, creosote and menthol are of definite value in improving appetite and blood count and building up weight in patients with chronic pulmonary tuberculosis. It does not directly heal the lesions but is a valuable adjuvant in the treatment.

RHEUMATOID ARTHRITIS. Twenty-seven patients with severe active rheumatoid arthritis were treated with the sting of the honey bee. Three were markedly improved and had remained well one year later.

Ohio State Medical Journal

Vol. 34, September 1938

*Early diagnosis and care of pregnancy. H. E. McClenahan.—p. 991.

PREGNANCY. A discussion of the diet for a pregnant woman is included along with the medical aspects. Carbohydrates are useful during the first few months of pregnancy to reduce the toxemia. During the latter months a slight increase in fat intake is necessary, as it is of value in increasing the clotting time of the maternal and fetal bloods. Butter, egg yolk and cod liver oil are good fat foods because they favor calcium absorption. Protein restriction in the latter months of pregnancy is harmful.

INSTITUTION MANAGEMENT

The American Restaurant Magazine

Vol. 21, September 1938

* Why the survey study. University of Toledo.—p. 26.
Streamlined cooking.—p. 50.

RESTAURANT SURVEY. Results of two restaurant surveys by University of Toledo students showing eating habits of patrons. An analysis of the data provides an accurate check on the effectiveness of the menus being served in this city.

Buildings and Building Management

Vol. 38, September 1938

Magic words that make people buy. E. Wheeler.—p. 25.
* Income tax liability on long term leases. L. Bloomenthal.—p. 27.
Where rent money goes. J. A. Dodds.—p. 33.
*Paint and light.—p. 34.
*Work-order control system. M. E. Bridston.—p. 39.
Cutting the coal bills. N. J. Radder.—p. 44.

INCOME TAX AND LONG-TERM LEASES. At present the federal government contends that when a building is constructed by a lessee the lessor is receiving taxable income when the building becomes his property—whether upon construction, when the lease expires, or when terminated. A choice of three methods of reporting this new income is given: The fair market value of the building may be reported in full the year it is completed; or the fair market value subject to the lease may be reported; or tax may be paid in instalments divided equally over the life of the lease on the depreciated value of the building at the end of the term. Either of the last two methods are found preferable for the majority of property owners.

PAINT AND LIGHT. Adequate office lighting gives better human performance and coordination. Loss of light from maintenance neglect includes loss due to use of old lamps, empty sockets, neglected burnouts, dirty walls and ceilings (ceiling reflection can be determined only by precision instruments), wrong combination of lamps and reflectors, under-voltage operation of lamps, dirty lamps and equipment. Reflection values of surfaces should be carefully considered. Redecorating programs based on scientific use of color and light are outlined.

WORK-ORDER CONTROL SYSTEM. Describes the system by which the Metropolitan Building Company of Seattle achieves positive control over each plant maintenance and cleaning job from the time of its inception until it becomes a part of accounting records.

Chain Store Age

Vol. 14, September 1938

Tag system provides control of major merchandise. S. Handelman.—p. 12.
*A yardstick for measuring neon signs.—p. 14.
*Simplified system answers our stock control problems. M. A. Winn.—p. 15.
Profit-sharing plan fosters employe partnership. C. Gristede.—p. 18.
*Cutting excessive electricity costs.—p. 27.

NEON SIGNS. Fifteen points to use when checking neon signs: design, engineering, framework, sign faces, porcelain enamel, no bolts in faces, neon tubing, copy, colors, transformers, electrical insulation, underwriters' label, union labels, warehousing and distribution guarantee. This article is authoritative as these points were fully suggested by manufacturers and constructors of neon signs. They also tell about the greater variety of color now available in neon signs.

SIMPLIFIED STOCK CONTROL. Tells how simplified stock control reduced costs. Stock broken into units at the warehouse is kept subject to store orders. Master sheets are sent to the store each Saturday, one set for each department. The forms are filled out for daily orders, special orders, and weekly orders. These sheets act as combination checking sheet for stock on hand, order blank, bill sheet for the stock clerk, and invoice.

ELECTRICITY COSTS. It is the manager's job to discover the cheapest rate under which electricity may be purchased—selection of proper rate means money saved. Meters, wires, and plugs must be tested frequently. Reduce "demand charges" by use of a carefully planned schedule. Install a reflector system to secure automatic light control that brings added savings through reduced electricity consumption.

Consumers' Guide

Vol. 5, August 1938

*Facts on meat grading.—p. 9.
*Battle of the markets.—p. 16.
*Your food supplies and costs.—p. 20.

MEAT GRADING. Grading facilitates selection, pricing, and trading in meats and livestock. It protects the consumer against misrepresentation of quality, enables him to make intelligent price comparisons, and to buy economically. The basis for grades includes conformation, finish, and quality, and has no connection with nutritive value. Quality and price ranges within a grade are very small.

WHOLESALE FRUIT AND VEGETABLE MARKETING. A survey of wholesale marketing of fresh fruits and vegetables, pointing out why distribution from this point is so costly, and needlessly so. One-third of final cost is incurred in getting food from wholesaler to consumer, due to present marketing facilities and system, unfair competition, monopoly, union activities, and racketeering.

FOOD SUPPLIES AND COSTS. General level of food costs will continue under 1937 level, with retail food costs declining .2% in July, due to sharp reduction in fresh vegetable prices, which more than offset advances in prices of butter, eggs, and all meats except poultry. There will be an increase in amounts of dairy products, quick frozen fruits and vegetables, string beans and green peas, poultry, lamb, rice, pears, wheat, and dried prunes, and a decrease in apples, grapes, eggs, potatoes, almonds, walnuts, canned tomatoes, canned corn, and most canned fruits.

Horwath and Horwath

Vol. 18, September 1938

The trend of business in hotels.—p. 3.
*Food and beverage costs.—p. 3.
*Hotel business to date.—p. 5.
*New York City market prices.—p. 7.

FOOD AND BEVERAGE COSTS. Average hotel food cost in June 1938 was 4% below that of June 1937 with cuts in hotels of smaller cities being a little more pronounced than in New York City and Chicago. The wholesale food price index turned slightly upward in June but not enough appreciably to affect costs per dollar sale. Beverage cost did not show a reduction from the corresponding month of the year before.

HOTEL BUSINESS. Tabulation of statistics from 5 large and 5 small hotels shows the effect of current conditions on hotel business. Sales are about 10% lower this year than last. Operating profits are down 24% in large hotels and 29% in small ones. In both groups the ratio of cost of sales has been declining since 1936 while payroll trend is steadily upward. Decline in ratio of departmental profit to total restaurant sales is marked. Ratios of advertising and business promotion to room sales were somewhat higher in 1938 than in corresponding periods of 1937 and 1936. Ratios of unapportioned expenses to room sales show a steady uptrend. On the basis of the 10 representative hotels, the outlook for 1938 is sharply decreased sales, only slightly reduced operating expenses, and therefore, decidedly lower profits.

NEW YORK CITY MARKET PRICES. A tabulation of average market prices paid for quality merchandise by a group of representative New York City hotels and restaurants during May, June, and July 1938 in comparison with the same months of 1937 shows general trend of prices over the three months and the comparisons with the corresponding period of last year as well as the average prices for each month of the 49 items listed together with the percentage increase or decrease as compared with identical items for last month and last year. Items listed cover most popular cuts of meat, fowl, fish, fresh fruits and vegetables, butter, eggs, milk, sugar, flour and coffee.

Hospital Management

Vol. 46, August 1938

*Instruction of patients on special diets. L. West.—p. 30.

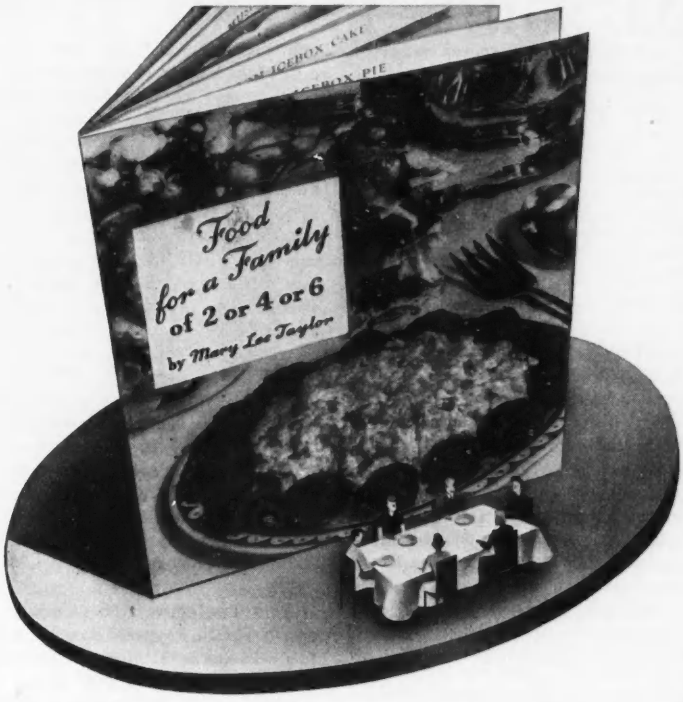
INSTRUCTION OF PATIENTS ON SPECIAL DIETS. Discusses the hospital as a school for teaching individuals the importance and preparation of any special diet. Includes an outline to follow in instructing patients in diet therapy.

Hospitals

Vol. 12, September 1938

*What shall we drink? V. S. Swisher.—p. 116.

WHAT SHALL WE DRINK? An interesting history of the discovery of coffee. Gives ap-



The tested recipes in "Food for a Family of 2 or 4 or 6" have been created and perfected, having in mind appetite appeal, fine flavor, proper consistency or texture, greatest possible wholesomeness and low cost. The dishes made from these recipes, which call for Irradiated Pet Milk, are more wholesome because they contain an extra large amount of whole milk and also an extra amount of tooth and bone-building "sunshine" vitamin D.

These dishes cost less because Irradiated Pet Milk costs less generally than ordinary milk. Used as cream it costs less than coffee cream—much less than whipping cream. The cost of the food is further cut because in many instances less butter is required—often eggs can be omitted—and cream and whipping cream can be replaced by using Irradiated Pet Milk.

A copy of this beautiful book is yours, free of charge, if you mail coupon.

PET MILK COMPANY, 1450k Arcade Building, St. Louis, Mo.
Please send me copy of "Food for a Family of 2 or 4 or 6," free of charge.

I teach (subjects)_____ in _____ school (grade)

*Name*_____ *Address*_____

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(*Fill in completely. Offer limited to residents of Continental U. S.*)

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proved methods of making coffee, tea, cocoa, and summer beverages.

Hotel Monthly

Vol. 46, August 1938

*Renovation, proof it is profitable.—p. 29.
*Bed that won't come apart.—p. 31.
Helpful business machines.—p. 42.
Seasonable breakfast suggestions.—p. 46.
Dishwashing, the art of.—p. 49.
Lamp bulbs, electric, new style.—p. 63.

RENOVATION PROFITABLE. The Richmond Hotels Inc., increased efficiency by central repair, laundry, bakery and ice cream shops between the hotels with trucks making daily deliveries. Laundry alone shows about 20% saving over outside work, including 15% for depreciation and 6% for interest. Installed sanding equipment to counteract losses by splinters. Removed paint from furniture and refinished in natural wood and varnish for better wear. Removed musty odor by replacing layers of wall paper with paint. Rooms renovated further by adding cornices; fitted, zippered upholstery covers; carpets and electric fans. Bathrooms are being refitted. Replaced a formal room with cafeteria for breakfast and lunch.

STRONG BEDS. Diagram of the Stanley Norris Bed Lock with slip-on of wood. Draw nut at ends makes ease in tightening, and prevents bed from slipping apart.

Journal of Home Economics

Vol. 30, September 1938

*The newspaper's responsibility to the consumer in advertising censorship. L. E. Prichard.—p. 445.
*What is in seven billion cans? F. M. Shook.—p. 451.
Training home economists for participation in a housing program. M. A. Mason.—p. 456.
*Domestic science in the educational institute of Scotland. M. M. Hunter.—p. 461.
Twenty years of home economics in Cleveland associated charities. V. M. Pratt.—p. 466.
Gainfully employed homemakers. V. Britton.—p. 467.
*School nutrition in the association for health, physical education, and recreation. M. Eichelberger.—p. 472.
*Marihuana.—p. 477.
International management congress.—p. 480.
Effect of diet on vitamin C output. V. R. Goddard & R. A. Preston.—p. 482.
*The cause of loss of vitamin C from bottled tomato juice. D. K. Tressler & K. M. Curran.—p. 487.

ADVERTISING CENSORSHIP. The publisher has a moral obligation to the public to advertise only products which are safe. He must go beyond the law and eliminate the dissemination of advertising material which may be misleading, fraudulent, or objectionable.

SEVEN BILLION CANS. Canners of the United States hesitate in the grading of their products as to quality. Lack of information regarding the contents, use, grade, and quality of products cuts the sales to the homemaker who has no way of getting this information. Suggests that we follow the lead of our Canadian canners and gain back the export trade lost by failure to designate grade on our labels.

THE EDUCATIONAL INSTITUTE OF SCOTLAND. Since 1900 the home economics profession has risen from its lowly status in Scotland to become a respected section of the Educational Institute of Scotland. The instruction in housecraft promises to continue in its upward march to be acknowledged as a stout pillar in the "Edifice of National Economy".

HEALTH EDUCATION. The American Association for Health, Physical Education, and Recreation has recently established a nutrition section. This section prepares and selects authentic teaching material for the use of the classroom teacher. Members must meet educational and practical qualifications and have had two years of successful experience in the field of nutrition.

MARIHUANA. Public opinion must be aroused in order to stamp out the use of the dangerous drug, marihuana. Education must supplement government control in the extinction of the use of this powerful narcotic intoxicant so devastating to young people.

BOTTLED TOMATO JUICE. The relative loss of vitamin C from tomato juice depends on the amount of air present when the tomato juice is bottled, rather than the type of bottle. After 40 days there is no appreciable loss if the bottles or cans are completely filled with hot juice.

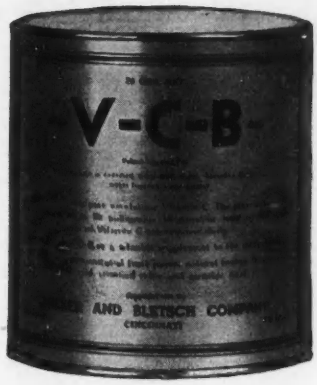
Modern Hospital

Vol. 51, September 1938

*Then, now, and next. L. G. Graves.—p. 128.

THEN, NOW, AND NEXT. Outlines the development over twenty-five years of the hospital

REDUCE ORANGE JUICE COSTS 30% with V-C-B



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A FRUIT JUICE SUPPLEMENT RICH IN VITAMIN C

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V-C-B is a special purpose food designed to contribute Vitamin C to natural fruit juices. In 28 oz. hermetically sealed cans, it contains 60,000 International Units of Vitamin C (3000 mgm. Cevitamic Acid). When made up according to directions, V-C-B produces a beverage having approximately 40 mgm. of Vitamin C per 100 cc. of beverage, the approximate caloric and Vitamin C content of Fresh Citrus Fruit Juices.

Experiments show that while natural orange juice may change in flavor and Vitamin C potency upon standing, mixtures of 50% Vitamin C Beverage and 50% natural orange juice will not change in flavor or suffer any appreciable loss of Vitamin C content after being in refrigerator up to 24 hours. Natural orange juice may be extracted the night before, mixed with Vitamin C Beverage, placed in the refrigerator and be in perfect condition for early morning breakfast. Besides the saving of time during the breakfast rush, a cost saving of 30% is effected by using the V-C-B—Fresh Orange Juice mixture.

V-C-B can also be used as a Refreshing Beverage in Liquid Diets, Restricted Diets, High Carbohydrate Diets, Forcing Fluids, to fortify vitamin C potency of other fruit juices and to meet the Daily Requirement of Vitamin C. When used alone, V-C-B effects a saving of 60% over the cost of fresh citrus juices.

You are invited to try the blind fold test on equal mixtures of fruit juices and Vitamin C Beverage in comparison with fruit juices alone. Fill out and mail the attached coupon for a 3½ oz. sample of V-C-B and additional detailed information.

Many thanks for the encouragement given to us at the Milwaukee convention by all, including many leading authorities on nutrition and dietetics.

V-C-B has been accepted by the Council on Foods of the American Medical Association with the following statement:

"Vitamin C Beverage (V-C-B) contains approximately the same amount of Vitamin C and caloric content as fresh orange juice."

MAIL THIS COUPON NOW!

HILKER AND BLETSCH COMPANY
15-17-19 E. PEARL STREET, CINCINNATI, OHIO
Please send free of charge one 3½ oz. can of V-C-B. (Makes one quart of Vitamin C Beverage)

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kitchen into a well equipped laboratory and administrative center.

The Nation's School

Vol. 22, September 1938

*Cafeteria size. Editorial.—p. 15.
*How Detroit hires its help. M. M. Carothers.—p. 35.
*Cafeteria in new dress. E. H. Davis.—p. 58.

CAFETERIA SIZE. Specialists insist that cafeterias, to be functional in education, must never seat more than 500, rarely more than 250. Economy has led architects to design single eating units of much larger size, in order to utilize equipment and operating personnel more efficiently. Only in smaller units is a social interchange between pupils possible, and this adjustment is necessary if the plant is to function educationally.

DETROIT'S PLACEMENT SYSTEM. Applicants for positions as student lunchroom managers must have a college degree, with major in institution management, and are selected on basis of a written test covering technical knowledge; certain general qualifications, such as personality, physical fitness, motive and age; intelligence; training; and experience. A 20-week training course is given, after which students are placed as vacancies occur.

DECORATING THE CAFETERIA. Suggestions are offered for making the school cafeteria as attractive as possible. Treatment of floors, walls, ceilings, woodwork, windows, and furniture is discussed in detail. Suggestions are made both in furnishing new units and redecorating old ones, and valuable data is given on purchasing curtains, table and chair coverings and screens.

Personnel Journal

Vol. 17, September 1938

*What foremen learn in conferences. R. J. Greenly & L. Tussing.—p. 81.
Pointers on pay plans. E. N. Hay.—p. 88.
Employee relations in federal service. P. W. Melton.—p. 96.
*Report on older workers. Employment problems committee.—p. 102.
*Training to improve work. L. Sweet.—p. 109.

FOREMEN AND CONFERENCES. Questionnaires were sent to 500 foremen in a study made by the Department of Trades and Industries of Purdue University to determine the value of conferences with foremen. When the results were tabulated and analysis made, the weak spots of the various training programs for the foremen were detected and strengthened.

AGE AND INDUSTRY. Workers upon reaching the age of forty or more are finding it increasingly difficult to maintain and obtain jobs. Public sentiment having been aroused because of state issues and organized labor groups, industry is attempting to contribute to the solution of the problem of age prejudice. By considering individual cases on their own merits of skill and knowledge, by sponsoring training and employee education, and by maintaining improved health programs of the workers, industries are combating the problem of age employment.

TRAINING WORKERS. The only criterion of a training program is its effectiveness in teaching methods to help the worker on the present job or the one just ahead. Such a program entails the following steps: establishment of a standard of performance, examination of present practices used to increase performance, determination of the gap between present and desired standard practice, and then planning an appropriate curriculum.

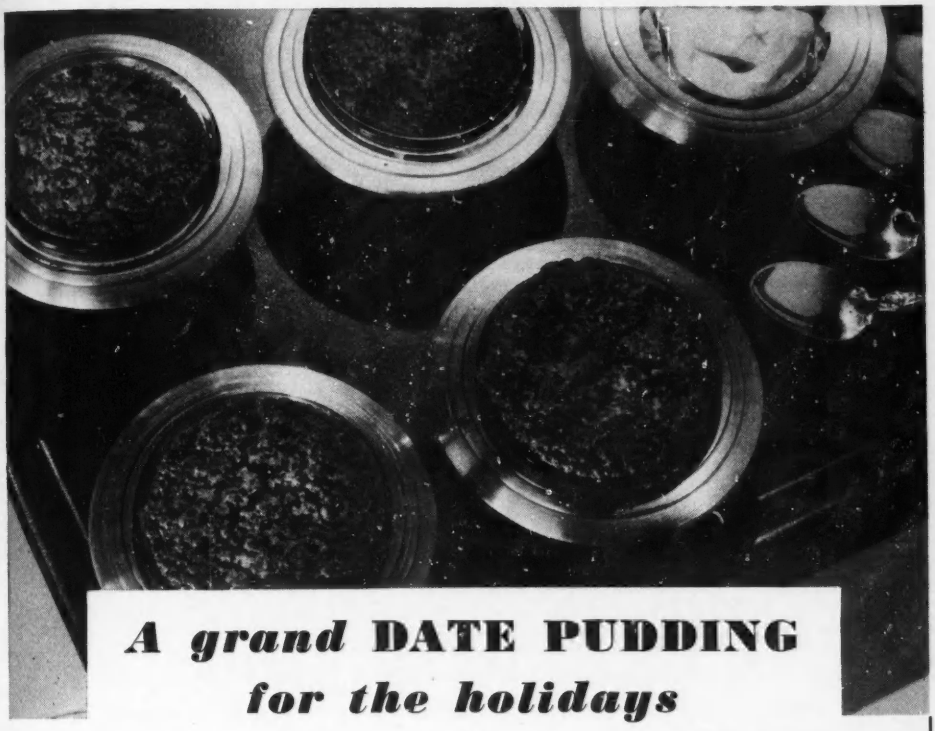
Restaurant Management

Vol. 42, September 1938

*Food for thought. J. O. Dahl.—p. 15.
*Merchandising your food.—p. 20.
*Bayard says.—p. 22.
*$150,000 builds 600-seat coffee shop.—p. 35.
Merchandising calendar.—p. 38.
Pineapple research.—p. 39.

FOOD FOR THOUGHT. Timely article containing wealth of suggestions. Hire a girl from a good home if you want true courtesy; if you pay salaries in cash, get a signature for the amount; a good cook knows how to follow recipes; chewing gum is worse in a waitress's mouth than under the table top. When you eat out, patronize a restaurant better than your own. You cannot get clean dishes out of a dirty dishwashing department.

MERCHANDISING FOOD. Make your menus interesting and attractive to your public by



A grand DATE PUDDING *for the holidays*

HERE'S a timely and tempting new recipe for Date Pudding. Kellogg's Rice Krispies give it the crispness and lightness that are so desirable. It's a delightful change from heavy steamed puddings. Economical. Easy to prepare. Easy to digest.

You'll also find that Rice Krispies are just the thing to use in place of nutmeats in desserts and candies. Sprinkle over soups. Enjoy them frequently as a crisp ready-to-eat cereal.

Have us send you a complete set of appetizing Rice Krispies recipes — all *triple-tested* in the Kellogg Kitchen. Just mail the coupon at right.

RICE KRISPIE DATE PUDDING

2 eggs — 1 teaspoon baking powder

1 cup sugar — 1 cup Kellogg's Rice Krispie crumbs

¼ cup sweet milk — 1 cup chopped nutmeats

1 cup chopped dates

Beat the eggs, and add the sugar and milk. Mix the baking powder with the crumbs and add to first mixture together with nuts and dates. Put into a buttered pudding dish and bake in a moderate oven (400° F.) for 40 minutes. Serve cold with plain or whipped cream. Yield: 8 servings.

Home Economics Department 101-L
KELLOGG COMPANY
Battle Creek, Mich.

Please send me, free, a complete set of Rice Krispies recipes.

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offering them something unusual. Suggestions are a map of the vicinity, points of historical interest or a calendar of outstanding events.

BAYARD. Gives a list of suggestions including the installation of a bell by the cashier to be used when she needs assistance of any kind and a foot switch to be used in case of robbery. Tells how to help your employees save for a rainy day; how to keep the porter or kitchen man looking neat; how to eliminate steamed windows in winter, and how to use burnisher for longer wear on silver. Tells of new wallpaper impervious to gravy, grease and steam.

$150,000 COFFEE SHOP. New ideas in this coffee shop include unlimited parking in fireproof garage next door; serve yourself wardrobe; fruit juice squeezed at patron's table; air conditioning at 72 degrees the year around; modern conveyor system taking dishes to an automatic washer; dollar dinner including a selection of 7 appetizers, 5 soups, 20 entrees, 5 vegetables and salads, 20 desserts and 3 beverages.

. . . . . So you

didn't get to Milwaukee

This is intended only for those who missed the Milwaukee meeting. Our thought is—those dietitians who "missed connections" might want their own copies of the latest revised "Digest of Facts and Opinions on Vitex Vitamin D Milk." A number of those who visited our booth at the Annual Meeting accepted copies of this brief review of the literature for their personal use. Perhaps you would like a copy too.

A letter or postcard to Vitex Laboratories is all that is needed for your copy of the new "Digest of Facts and Opinions." We think you will find the "Digest" a convenient reference to the literature on vitamin D. And it may help you to get acquainted by "long distance" with Vitex Vitamin D Milk, the milk which contains 400 USP units of the vitamin D of cod liver oil in every quart.

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NEWS NOTES

American Dietetic Association, Annual Meeting, Milwaukee, October 8–14. As the JOURNAL goes to press, hundreds of dietitians are gathering from all parts of the United States and foreign countries for the 21st Annual Meeting of the Association.

In keeping with the high standards set by other local groups in the matter of entertainment, the Milwaukee hostesses had planned a week of delightful social events, beginning with a *kaffee klatsch* for the Executive Committee on Saturday afternoon. Here delectable cakes representing the acme of German culinary art, were served those attending. Some of the Milwaukee specialties were: *streusel* coffee cake, cheese *torte*, poppy seed *torte*, apple *torte*, chocolate potato *torte*, and *himmel torte*.

On Sunday members were received at a tea at the Children's Convalescent Home, a beautiful, modern institution in the outskirts of Milwaukee, where the dietary department is directed by Nell Clausen, president of the Wisconsin Dietetic Association and chairman of arrangements for the Annual Meeting. Beautiful table decorations, unusual refreshments and a gracious hospitality characterized this tea.

A particularly interesting feature of this meeting is the extensive commercial exhibit comprising 52 firms. In addition to the concerns listed on page 659 of the October JOURNAL, the following firms participated: A. F. Pattee, Publisher, Mount Vernon, N. Y.; Stewart & Ashby Coffee Company, Chicago; Florida Citrus Commission.

The final scheduled session, the Saturday meeting at the Mayo Clinic, will offer trips through the Clinic, the Institute of Experimental Research, or the Museum. At the luncheon at the Kahler Hotel, Dr. Edward H. Rynearson will be toastmaster with Drs. W. J. Mayo, C. H. Mayo, Donald Balfour, and Russell Wilder, Mr. Roy Watson, president and general manager of the Kahler Corporation, and others as guests. Following the luncheon, there will be a meeting in Plummer Hall where Dr. Russell Wilder will speak on "The Use of Vitamin Concentrates in Corrective Diets"; and Dr. J. A. Bargen will discuss "Ulcerative Colitis".

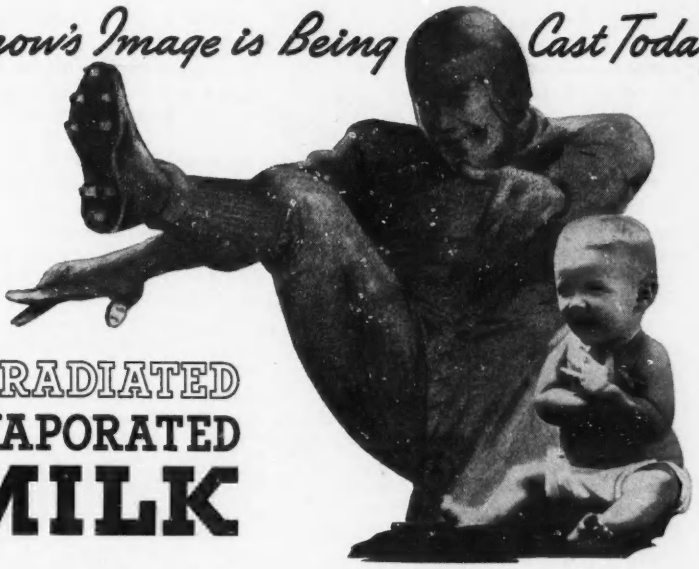
American Dietetic Association, Annual Meeting, Los Angeles, August 27–31, 1939. The following committee appointments have been made by Anna M. Tracy, national president, for this meeting: Local Arrangements: Katherine Brown, chairman, Elsie Nelson, Marguerite Richards. Program: Mary Northrop, chairman, Elizabeth Hayward, Jessamine C. Williams. Hospitality: Helen Walsh, chairman, Essie Elliott, Charlotte Sloan. Tickets: Mildred Chase Cook. Trips: Reeva Hinyan. Pages and Ushers: To be appointed. Publicity: Octavie De Beaulieu. Local Chairman of Exhibit Space: Mary L. Small. Local Chairman of Program: To be appointed. Day in San Francisco: Gwen Wedlake.

The Los Angeles group arranged a booth at the Milwaukee meeting where hotel reservations could be made and where full information with regard to accommodations and travel booklets were available.

Appointment of Inspector for Approved Courses, Student Dietitians. Adeline Wood, outgoing chairman of the Administration Section of the A.D.A., was appointed Inspector of Courses for the coming year at the first session of the Association's incoming Executive Committee meeting on October 13. Miss Wood is a graduate of the University of Illinois and was the first student dietitian graduated from St. Luke's Hospital, Chicago, training course. Later she was appointed dietitian in this institution. Miss Wood has been a lecturer on institution purchasing for the past 10 years at Teachers College, Columbia University, New York, and chief dietitian at Mt. Sinai Hospital, New York City, for the past 13 years. Miss Wood recently resigned her position at this institution to take graduate study. Her position at Mt. Sinai has been rather unique in that she not only controls all purchasing but does the actual buying for her department. She is the only woman buyer in New York City who goes regularly to the wholesale markets.

Investigation Board, American Dietetic Association. Following the meeting of the Board at the Hotel Schroeder, Milwaukee, October 9, at the request of the Board members, Mary Louise Bone, Margaret Ohlson and M. Faith McAuley, and with the approval of the Executive Committee, the president, Anna

Tomorrow's Image is Being Cast Today



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TEAMWORK (Calcium—Phosphorus—Vitamin D) IS NEEDED TO ASSURE PERFECT BONE STRUCTURE!

One alone won't do it! Even two are not sufficient! For perfect bone and tooth structure *all three are needed*—calcium, phosphorus and Vitamin D! Each plays its part but each is dependent on the others—just as the players on a successful football team. Irradiated Evaporated Milk *has all three in abundance!*

For babies it offers a dependable measure of protection against rickets. In growing boys and girls it continues to foster the proper development of bones and teeth. It helps to fortify the expectant and nursing mother against the increased demands for nourishment which the infant makes upon her body. It serves every regular milk purpose—and *supplies extra Vitamin D!*

Irradiated Evaporated Milk is *always uniform* in composition and in Vitamin D potency. It is convenient to use and available everywhere. It is good, rich cow's milk *doubly* concentrated. It is *sterilized,* hence *safe.* It is *homogenized* and *heated*—forms softer curds in the stomach—is digested more readily.

Vitamin D belongs in Milk, the richest and most economical food source of the bone and tooth-building minerals. It is *especially needed* to safeguard against Vitamin deficiencies during the sun-poor winter months. Irradiation of Evaporated Milk by the Steenbock Process *does not increase its low price....* SEND THE COUPON FOR VALUABLE LITERATURE.

Many of the best known brands of Evaporated Milk are Irradiated, enriched with Vitamin D, by the Steenbock process. Yet this has not increased the cost of Evaporated Milk. Irradiated Evaporated Milk can be obtained in every community. Through scrupulous and scientific control by the manufacturer, and by frequent tests of both open market and factory samples, uniformity of Vitamin D potency is assured.

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MADISON, WISCONSIN

Please send me the two booklets—"Infant Feeding with Irradiated Evaporated Milk" and "Brief Excerpts from Scientific Literature" at once! JADA 1138

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M. Tracy, has appointed the following committee to review the policies of the Association in regard to Journal advertising: Margaret Edwards, chairman, members of the Investigation Board and Dr. Lillian Storms.

American Medical Association, Bureau of Health Education. The bureau announces a program of broadcasts entitled "Your Health" which will appear on the Blue Network of the National Broadcasting Company during the 1938–39 season. Attention is called particularly to the programs concerning food which will be presented December 14, 21, 28, and January 4, at 2 P.M.

National Council for Mothers and Babies. The third meeting of the council, at which Mrs. Anna DePlanter Bowes was the official representative of the A.D.A., was held at the Hotel Washington, Washington, D.C. on October 1. Representatives of thirty-seven national organizations were present. During the morning session reports on the three types of activities which the council has adopted were presented as follows: (1) Professional Activities—Dr. J. H. Mason Knox, director of division of maternity and infancy, Maryland State Department of Health, outlined work among professional groups. This consisted principally in securing better training in obstetrics and infant care for physicians, nurses and midwives, and an effort to provide better home and hospital facilities for mothers and babies. (2) Community Activities—Mrs. J. K. Pettingill, representing the National Congress of Parents and Teachers, reported that North Carolina has been selected as the first state to show how community resources may be coordinated. (3) Information Service—The plan of this section under the chairmanship of Hazel Corbin, Maternity Center Association of New York City, includes publication of informal bulletins to assist in calling attention to existing problems and needs and for organizing state conferences and demonstrations.

Among the luncheon guests were Alice Latson of The Children's Hospital, Washington, and Ann Sullivan Hagen of the Chevy Chase Dairy, as representatives of the District of Columbia Dietetic Association Executive Committee.

The afternoon session consisted of reports from magazine writers on maternal and child health, the National Health Conference held in July, and of new activities initiated in the state departments of health in Oklahoma, Maryland and New Jersey.

National Restaurant Association. The 20th Annual Convention and Exposition was held at the National Restaurant Mart, Chicago, October 2–7, 1938. Among the papers of interest to administrators were the following: "How Our Changing Habits of Living Are Affecting Food Industries", Will A. Foster, divisional director of sales, Borden's Dairy Delivery Company, San Francisco; "Demonstration on Poultry Preparation, Boning and Cooking", Mrs. Kathryn Bele Niles, director of foods and nutrition, Institute of American Poultry Industries, Chicago; "Meals for the Multitudes", Harold M. Hirsh, R. H. Macy & Co., New York City; "The Appeal of Fresh Vegetables", Allen Lustig, Longchamps, New York City; "Famous Foods of Famous Restaurants", Mrs. Marjorie Child Husted, (Betty Crocker) General Mills, Minneapolis; "Styling Foods", Mrs. Mary Budroe, manager, Track and Shore Inn, Miami; "The Progress of Frozen Food—Its Place in Today's Profitable Restaurant Operation", George L. Mentley, institutional sales manager, Frosted Foods Sales Corporation, New York City; "Vegetable Cookery", Katharine Harris, Department of Institution Management, New York State College of Home Economics, Cornell University, Ithaca; "The Care of Silver", A. A. Schipke, Hotel Division, International Silver Company, Meriden, Conn.

National Tuberculosis Association. The association announces the 32nd annual Christmas seal sale, and calls attention to the fact that in 1907, when the first seal sale was held, tuberculosis was the leading cause of death. Now it stands in seventh place but more people between the ages of 15 and 45 succumb to this disease than to any other.

Division of Nutrition Established in the State of Indiana. On August 1, 1938 the Bureau of Maternal and Child Health of the Indiana State Board of Health announced the establishment of a Division of Nutrition headed by Estelle Nesbitt, formerly dietitian at Peiping Union Medical College, China. This department will expand the activities of the Bureau

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Vital contents—Scores of daily menus providing from 1000 to 2000 calories. Long lists of substitute foods and supplemetary food charts to bring variety into the daily menu. Every diet conforming with modern concepts of "high fat" dietary treatment of diabetes.

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already comprising divisions of dental hygiene, child psychiatry, visual education and so on. Miss Nesbitt is a graduate of the University of Illinois, majoring in dietetics and nutrition. She took her student training at Johns Hopkins following which she joined the dietary staff under Dr. Ruth Wheeler at the University of Iowa.

For the present it is planned to confine the activities of the nutrition service for the most part to a program in cooperation with the demonstration branch of the dental health program in District Health Unit No. 4. During November a series of nutrition institutes will be held for the instruction of public health nurses. Miss Nesbitt plans to direct her program chiefly along two lines: greater attention to the nutrition defects and correction of these defects in children; and the promotion of normal or even optimum nutrition for expectant mothers.

Among the state leaders who will comprise a nutrition advisory council to the director of the Division of Nutrition, are the following: Lute Troutt, Indiana University Medical School; Cecelia Shuck, Purdue University; Lela Gaddis, Extension Service, Purdue University; Nell B. Massey, state dietition, Indiana State Welfare Department; Marie L. Matushka, Dairy Council of Indianapolis; Thurman B. Rice, M.D., and Mary H. Westfall, Indiana State Board of Health, Indianapolis.

Women in the Hotel Industry. The *Saturday Evening Post* for September 24, 1938, carries a full page advertisement of the Hotels Statler. The subject of the advertisement concerns the Hotels Statler Company's system of getting "small-kitchen" flavor from big hotel kitchens. Hotel chefs have perfected the art of making entrées, sauces and soups, but the executives of this hotel system recognize that the best authority on home cooking is the American woman. Today in every Statler hotel the salad pantry, the vegetable kitchens and in some cities the pastry kitchen as well, are under the direct supervision of highly trained women.

Photographed in the advertisement are Mr. John L. Hennessy, vice-chairman of the board of Hotels Statler Company and Marie L. Casteen, director of recipe research; Juliana Hunter of the Hotel Pennsylvania; Winifred Corelli of the Boston Statler; Ethel Spear of the Buffalo Statler; Helen Gwaltney of the Cleveland Statler; Helen Wooster of the Detroit Statler, and Elizabeth Hope Mader of the St. Louis Statler. "Food Researcher" is the title of all these women, and the University of Toronto, Michigan State College, Teachers College and Simmons College, are some of the schools from which they graduated.

Food Service In An Australian Hospital. The *Australian Hospital* for August, 1938, carries an article entitled "Food Transportation in the Hospital" by Edith Tilton Aitken. The section devoted to food service in this publication is supervised by Mrs. Aitken who is a consultant dietitian for the Hospitals Commission of New South Wales.

A New Instrument for Determining Vitamin A Deficiency As Indicated by Night Blindness. The American Optical Company announces a new instrument called the adaptometer, said to be the first ever developed to detect night blindness in a few minutes. It is now believed that night blindness is a major factor in causing automobile accidents at night. The adaptometer, with its quick and sure test for vitamin A deficiency, is expected to be of great value to doctors, eye authorities, school dietitians, the army and navy, industrial concerns, transportation companies, insurance firms, railroads, and motor vehicle commissions. Those lacking sufficient vitamin A or suffering from certain diseases and their after effects do not regenerate visual purple as fast as normal people, and are therefore subject to night blindness.

Sir Frederick Gowland Hopkins. The *Journal of the American Medical Association* reports that Sir Frederick, now 77, a Nobel prize winner and a past president of the Royal Society and the British Association, is soon to retire from the chair of biochemistry at Cambridge which he has held since 1914. In his address in which he welcomed the government's decision to endow chemotherapeutic studies in England on a satisfactory scale, he stated that it was just 50 years since he "became a would-be biochemist". He believes that the biochemist will always be needed "as a link between the pure chemist, organic and physical, and the needs of biology and medicine".

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Often when plain milk discourages appetite, rennet-custards give a patient new zest for meals. The easy addition of "JUNKET" RENNET POWDER works a "miracle"—it gives milk custard-like texture, delicious flavor, and makes possible dozens of variations by adding toppings of fruit, whipped cream or sauces.

Rennet-custards digest more readily than ordinary milk.

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"JUNKET" RENNET TABLETS
For making rennet-custards and ice cream. Not sweetened or flavored—add sugar and flavor to taste. Economical. Also makes other easily digested milk foods. Cartons of 12 packages containing 10 rennet tablets each.

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For making rennet-custards and ice cream. Flavored, but not sweetened. Also makes easily digested milk foods. Flavors: Vanilla Strawberry Maple Orange Unflavored
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IT IS. YOU KNOW YOURSELF FAT CONTAINS 9 CALORIES PER GRAM, CARBOHYDRATES ONLY 4. BUT HERE ARE MORE IMPORTANT FEATURES ABOUT NUCOA. EVERY POUND IS FORTIFIED WITH AT LEAST 7500 U.S.P. UNITS OF VITAMIN A... IT NEVER VARIES. ALSO, EXPERIMENTS SHOW NUCOA TO BE OVER 96% DIGESTIBLE...
THAT'S WHY I'M CONVINCED THAT THE USE OF NUCOA IS THOROUGHLY SOUND NUTRITIONALLY. IN MY OPINION, EVERY HOME ECONOMIST OWES IT TO HER STUDENTS, AS WELL AS HERSELF, TO TAKE AN INTEREST IN NEW ADVANCES IN THE FOOD FIELD WITH PRODUCTS SUCH AS NUCOA
THE WHOLESOME "THRIFT SPREAD" FOR BREAD
New NUCOA
THE WHOLESOME VEGETABLE OLEOMARGARINE
ACCEPTED AMERICAN MEDICAL ASSN.
ABSOLUTELY! AND HERE'S ANOTHER HOME ECONOMIST WHO'S GOING TO FIND OUT ALL ABOUT NUCOA

TO help you learn *all* facts about New Nucoa, we invite you to visit one of our three plants to see how America's largest selling margarine is made. Or, if you prefer, write us at 88 Lexington Avenue, New York City, New York. We'll answer *all* your questions. Better still, test New Nucoa yourself. You'll find it lives up to every claim made for it.

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The Y. W. C. A. School of Homemaking, Providence. Announcement is made of the continuance of these classes in foods and nutrition under the direction of Eleanor Wells.

Cincinnati Dietetic Association. At the March meeting which was held at the Christian Holmes Hospital, a group of student dietitians from the various hospitals presented papers on unusual diet cases which they had studied in the hospital. During this month the association also gave a benefit bridge party which was successful both socially and financially.

A dinner meeting was held in April at the University of Cincinnati with the home economics association. Marietta Eichelberger spoke on "The New in Nutrition, Practically Speaking".

Dr. William Bean, an associate in the Research Department of the Cincinnati General Hospital, discussed "Nicotinic Acid in Relation to Pellagra and Deficiency Diseases" at the May meeting.

The following officers were elected at the dinner meeting in June: president, Hazel Fullreide; vice-president, Dorothy Ward; secretary, Margaret Ackerman; treasurer, Stella Mae Lindemann.

The Greater New York Dietetic Association. Officers for 1938–39 are as follows: president, Elizabeth Cole, Montefiore Hospital, New York City; vice-president, Eleanora Sense; secretary, Dorothy Stephens; treasurer, Bertha Ashley, St. John's Hospital, Yonkers. Section chairmen are as follows: Professional Education, Clyde Schuman, Home Economics Department, New York University; Community Education, Mabel Perry, New York Hospital; Diet Therapy, Lorena Croft, Lawrence Hospital, Bronxville; Administration, Alta Atkinson, New York Hospital.

The Community Education and Diet Therapy Sections met jointly with the Social Welfare and Public Health Department of the New York City Home Economics Association September 26 at the Presbyterian Hospital. The leaders of the discussion were as follows: Grace O'Keefe, Mrs. Frances Naylor, Ida Jean Kain and Margaret Bryan.

A dinner was held on October 3 at the Panhellenic House when Mrs. Chase Going Woodhouse, author of *Business Opportunities for the Home Economist*, spoke on "Dietetics, an Uncrowded Profession".

Maryland Dietetic Association. The annual fall dinner meeting of the association was held September 21 at the Casino Hacienda of the Sheppard and Enoch Pratt Hospital, Towson, Md. This *primera reunion del ano* was sponsored by Alma Bering, president, and her staff at the hospital, with Josephine Anderson and Rose Porter, hostesses. The eighty members of the association who attended found themselves in the rich, mellow atmosphere of Old Mexico. The guests were warmly welcomed with hot *tamales* and chili offered at the open fireplace. Amidst a background of colorful Spanish costumes, Mexican fruit trees, and old Spanish relics, a delicious Mexican dinner was served by the "natives", dressed in the various costumes of their country. While eating the *sopa de frijoles Negros* and the *nueces dulces*, experiences and tales of vacation travels were exchanged. The dinner was followed by dancing, cards, and merriment to the strains of the guitar and accordion. With hearty *gracias* and *adios*, all departed with a feeling of an evening happily spent together and a year well started.

The October 3 meeting was held at the University Hospital, with Marian Connelly hostess. Dr. R. H. Riley, director of the Maryland State Department of Health, addressed the association on "The Food Laws of Maryland". The workmen's compensation laws of Maryland were also discussed.

Members of this association who announced their plans for attending the national meeting at Milwaukee are: Alma Bering, state representative; Kathleen Lewis, and Betty Olson, Johns Hopkins Hospital; Alice Jane, Spring Grove State Hospital; and Ruth Aldrich, Baltimore City Hospitals.

Ernestine Becker, of the School of Hygiene of the Johns Hopkins University, and assistant to Dr. E. V. McCollum, will give a series of six lectures on nutrition this winter. Further details will be announced later.

The Diet Therapy Committee is making plans to sponsor another series of lectures on diet therapy by leading physicians of the city. Betty Olson, dietitian in charge of the metabolic diets at the Johns Hopkins Hospital, is chairman of the committee this year. All dietitians interested in diet therapy are urged to attend.

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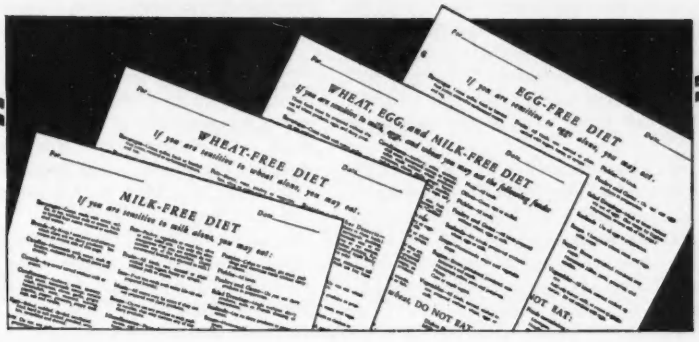

When a patient is sensitive to such common foods as wheat, milk or eggs, the task of explaining the necessary diet is a tedious one. These Allergy Sheets clearly state just what foods are allowed or forbidden, in relation to the patient's particular sensitivity. Recipes are given on the reverse side. No advertising appears on these sheets.

We'll gladly send you copies of these sheets and samples of Ry-Krisp. Taste these crisp, whole rye wafers and you'll know why they play such an important part in wheat, milk or egg-free diets. And, of course, they're perfectly *safe*—because they're simply flaked whole rye, salt and water. Use attached coupon! Send for them, *today!*

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The new magazine, *School and College Cafeteria*, is printing a series of articles by the dietitians of the public school cafeterias of Baltimore. The first of these was published in the September issue.

The Administration Section, with Kathleen Lewis, chairman, will include in their plans for this year the continuation of the standardizing of large quantity recipes.

Radio broadcasts on diet and nutrition will again constitute the program of the Community Education Section, as reported by Mrs. Alice Lambert, chairman. Schedules for the broadcasts will be announced very soon.

Frances Tuttle, who has been assistant dietitian at the University of Maryland, College Park, will be at the Gilman Country School, Baltimore, during the coming winter, as assistant to Ethel Olney, who is the dietitian in charge.

Mary Lewis Shearer, former assistant dietitian on the wards at the Johns Hopkins Hospital, is now a member of the staff of Saint Luke's Hospital, San Francisco.

Corinne Solt, who completed her postgraduate course in dietetics at the Johns Hopkins Hospital in July, is now doing dormitory work at the Kansas Union.

Bertlyn Bosley, a graduate of the Johns Hopkins Hospital course, and now working with Dr. Mary Swartz Rose, is vacationing in Mexico.

Carlotta Cubillas, a former student of the Johns Hopkins Hospital, is now head dietitian at the Dade County Hospital, Miami, Florida.

Vesta Sprugeon is assistant dietitian at the Touro Infirmary, New Orleans, Louisiana.

Bertha Jenkins has accepted a position with the Richmond Dairies, Inc., Richmond, Virginia.

Mrs. Laura Robeson has resigned her position at the Women's Hospital, Baltimore. She has been replaced by Mrs. Irving Rolker (Natalie Gibson) who had been on the staff previous to her marriage.

Massachusetts Dietetic Association. New appointees at the Massachusetts General Hospital are: Elma Seibert, formerly of Barnes Hospital; Bonita Sharpe, Vanderbilt Hospital; Georgianna Pearson, Buffalo Hospital; and Bernice Dappen, Massachusetts General Hospital training course. Mary Humber Russell has accepted a position at McLean Hospital, Waverly. Marian MacDonald and Dorothy Cook have resigned to be married. Louise Clippinger has joined the staff of Children's Hospital, Pittsburgh.

Eight members of the 1937–38 training course at the Massachusetts General Hospital were graduated in August and eight in October. The following appointments are reported for this class: Doris Anderson, Vanderbilt Hospital, New York; Marjorie Chandler, New England Hospital for Women and Children, Boston; Irene Currie, Faulkner Hospital, Jamaica Plain; Wordie Wood, Fresno Hospital, Fresno, California; and June Boerner, Red Wing, Minnesota. The 1938–39 class has seventeen members.

Quindara Oliver Dodge presided recently at a dinner at the Women's Educational and Industrial Union in honor of Hazel Young, the author of a new book of menus and recipes entitled *The Working Girl Must Eat*. Miss Young, who at present is with the General Foods Corporation, New York, was formerly associated with the Union.

Several nutritionists of the Massachusetts Department of Public Health were active in relief work following the September hurricane. Dorothea Nicoll of the department, who has received a scholarship from the United States Public Health Service, is studying at the University of Chicago. Catherine Leamy has resigned to become consultant in nutrition in the Maryland Department of Public Health. Helen Hinman, formerly of the Massachusetts Department of Public Health, has been appointed nutrition consultant in New Hampshire.

Eula Bee Martin, formerly assistant dietitian at the New England Baptist Hospital, and corresponding secretary of the Massachusetts Dietetic Association, has resigned to be married. Marian Woolworth has been appointed corresponding secretary.

New assistant dietitians at the New England Baptist Hospital are Ruth Irwin, who has been at the Middlesex University Medical School in Waltham, and Ruth Brouard, a graduate of Worcester Memorial Hospital.

Graduate students in the School of Home Economics at Simmons College are Maxine Turner, consulting nutritionist in the Oklahoma Health Department, and Diamond Ballin, who is to assist Katherine Mitchell at the Tata Memorial Hospital, Bombay, India. Miss Ballin, a graduate of the Isabella Thoburn College

An Appreciation

We wish to express our appreciation to the many delegates at the Milwaukee convention who came into our booth, sampled our orange and grapefruit juices and met our representatives.

The keen interest shown in this new way of handling the beverage problem in the modern hospital indicates that Dietitians and Hospital Administrators are looking for some better way of handling their beverage problem than by the use of fresh fruit.

The orange and grapefruit juices we served during the convention were mixed right in the booth by simply adding 9 parts of water to 1 part of Sunfilled Brand Citrus Concentrate—easily and quickly done.

These concentrates are made from tree-ripened Florida Valencia oranges—just the water taken out—nothing added—no preservatives —no adulterants. Retains the flavor, vitamin content and food values natural to the fresh fruit in high degree.

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in Lucknow, India, received her M.A. degree from Wellesley College.

Frances Griswold, special instructor in institution management at Simmons College, was recently married to Mr. Massis Thomasian.

Ada Berning has left the Community Health Association, Boston, to become nutritionist with the Visiting Nurse Association and the Charity Organization Society, Hartford, Connecticut. Julia Dwight, a graduate of Simmons College, has been appointed on the staff of the Community Health Association.

Eleanor Wedberg, dietitian at the New England Hospital for Women and Children, has accepted a position at the Boston Dispensary.

An exhibit prepared by the Boston Dispensary Food Clinic recently demonstrated the value of good nutrition at the Boston Young Women's Christian Association Open House. Food Clinic conferences conducted by Marjorie Foster have been accepted as an integral part of the Young Women's Christian Association health education program. The following are students in the Food Clinic course this year: Corea Genoveffa, Massachusetts State College, Framingham; Barbara H. Griffin, Connecticut College for Women; Martha D. Kaplinsky, Massachusetts State College, Amherst; and Pearl Williams, Simmons College. Helen Perry, a graduate of last year's course, has been appointed community nutritionist in Quincy, Massachusetts. Another 1938 graduate, Janet Ennis, is at the Nutrition Clinic of the New York Hospital for three months.

Philadelphia Dietetic Association. Officers for the coming year are as follows: president, Henriette Pribnow, director, Dietary Department, Hahnemann Hospital; vice-president, Elda Robb, assistant professor of home economics, Temple University; secretary, Lila G. Hainer, assistant professor of home economics, The Drexel Institute of Technology; treasurer, Miriam E. Gaige, staff dietitian, Philadelphia General Hospital. A series of meetings for the coming year have been planned and printed in booklet form. The first meeting of the year, September 27, was an informal dinner meeting at which Arthur R. Kane, vice-president of Horn and Hardart Baking Co., spoke on "Large Quantity Food Preparation and Service."

The October 25 session was held at Temple University, Frederick H. Lund, Ph.D., speaking on "Emotions: Their Development and Control". Guests at this meeting included representatives from the League of Nursing Education and American Association of Medical Social Workers, Middle Atlantic District.

Mrs. Anna DePlanter Bowes of the Philadelphia Child Health Society was appointed by Lenna F. Cooper to represent the association at the National Conference on Better Care for Mothers and Babies held in Washington, D. C., October 1.

News from Advertisers and Exhibitors. *Hoffmann-LaRoche, Inc.* The August 29 issue of *Manufacturing News* tells of the granting of a patent to Max Klingenfuss of Switzerland, covering a process for the manufacture of Vitamin B_1. This patent has been assigned to Hoffmann-LaRoche, Inc. The first United States patent for the manufacture of Vitamin B_1 was issued to Dr. R. R. Williams. Other patents are believed to be pending.

A 500 ampul of Vitamin C Injectable 'Roche' has just been announced, the ampul being of 5-cc. size and packaged in boxes of 6. 'Roche' Injectable Vitamin C will continue to be available also in 100-mg. ampuls (2-cc.). For oral administration, 25-mg. and 100-mg. tablets of Vitamin C 'Roche' are marketed in bottles of 40 and 100. Another announcement concerns a new 100-mg. vial of Berocca (vitamin B_1) solution for parenteral injection. The vial is 10-cc. size, each cc. of solution containing 10-mg. of vitamin B_1 (thiamin chloride).

Chr. Hansen's Laboratory, Inc., Little Falls, N. Y. through Mary Mason, director, Home Economics Department, announces a new recipe book entitled "How to Make Rennet-Custards and Ice Cream" attractively illustrated and brimful of interesting recipes. This book is one answer to the problem of how to increase the consumption of milk by means of delicious desserts.

Among the helpful recipes conveniently arranged in card form are those prepared by Mary Pearl, nutritionist for the *Maltex Company, Inc.* Her recipes suitable for autumn include a new waffle recipe and a coffee cake.

RECENT ADVANCES IN THE SCIENCE OF NUTRITION

III. Some Attainments in the Fields of Vitamin A Research

● During the twenty-five years since its discovery, vitamin A has been the subject of much intensive research, first by the biochemist and physiologist, and later by the clinician and organic chemist. It may be of interest to describe briefly several of the achievements made in these various fields of research on vitamin A.

It has been found that vitamin A is unique among the vitamins thus far discovered. It is apparently the only vitamin produced solely by animal metabolism from precursors—certain carotenoid pigments—which are themselves solely the products of plant metabolism. The structure of the vitamin has been established and checked by syntheses of closely allied forms and probably of the pure vitamin itself (1).

Physiological and clinical researches have provided explanations of the mode of absorption of the vitamin and the mechanisms of transport and storage in the body (2). The specific pathological effects of varying degrees of vitamin A deficiency in humans have been extensively studied. Many of the older ideas concerning specific effects of vitamin A on man have been confirmed; some of the older beliefs have been dispelled (2).

Recent years have also brought improvements in assay methods for vitamin A (3). Common American foods have been surveyed and vitamin A values tabulated (4). Last but not least, authoritative estimates are at hand as to the quantitative requirements of children and adults for vitamin A (5). Such, in brief, are only a few of the important additions which have been made to our knowledge of this essential dietary factor.

Today, students of nutrition favor the practice of "protective nutrition" in which the individual is maintained upon a diet calculated to supply all known dietary essentials—vitamin A included—in optimal amounts insofar as these amounts may be known. In specific instances, such dietaries must be supplemented by vitamin-rich materials. However, the prime consideration is to provide a properly formulated basic diet. In this connection, commercially canned foods are worthy of mention.

Modern canning procedures are practically without effect upon the vitamin A values of raw foods (3). The commercially canned varieties of foods prized for their vitamin A contents, therefore, lend themselves admirably to the formulation of protective diets. Not only because of their contributions of vitamin A, but also because of their ready availability, convenience and economy, these commercially canned foods provide one of the most valuable means whereby the American public may secure an optimal supply of the important dietary essential, vitamin A.

AMERICAN CAN COMPANY
230 Park Avenue, New York, N. Y.

1. 1938. J. A. M. A. 110, 1748.
2. 1938. Ibid. 111, 144.
1938. Ibid. 110, 2072.
3. 1938. Ibid. 111, 245.
4. 1937. U. S. D. A. Bur. of Home Econ., Misc. Pub. 275.
5. 1934-1935. Amer. Pub. Health Assn. Year Book 25, 69.

We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles. This is the forty-second in a series, which summarize, for your convenience, the conclusions about canned foods reached by authorities in nutritional research.

The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Council on Foods of the American Medical Association.

WHO'S WHO IN THIS ISSUE

Florence Peters, B.S. Teachers College, Columbia University, taught home economics for two years following her undergraduate work. She then attended the approved training course for student dietitians at the Johns Hopkins Hospital and later became a member of the dietary staff, first as instructor in dietetics and nutrition in the School of Nursing and also as ward dietitian, and later as administrative dietitian. In March 1933 she accepted the position of nutrition consultant, Bureau of Institutional Management, Department of Welfare, Commonwealth of Pennsylvania.

Jane Sedgwick, food administrator, Department of Institutions, State of California, has held this position under the Civil Service since 1932. She received her B.S. degree from the College of Home Economics, University of Minnesota, in 1923, and following her graduation she taught nutrition in the Health and Corrective Physical Education Department of the Los Angeles city schools. During this period, in the summers of 1925–27, and the year 1928, Miss Sedgwick was nutrition expert for the Los Angeles County Health and Tuberculosis Association in their summer health school demonstration. She then became nutrition adviser for the California State Tuberculosis Association and later for the Bureau of Tuberculosis, California State Board of Health. Her work included the supervision of twenty-six state subsidized tuberculosis sanatoriums where she assisted in the recognition, prevention and correction of malnutrition among school children.

Fern W. Gleiser, head of the Institution Management Department, Iowa State College, Ames, was graduated from the University of Washington and received her M.S. degree from Teachers College, Columbia University, New York City. She served on the institution management staffs at Oregon State College and Teachers College, Columbia University, and was head of the Institution Management Department at Drexel Institute, Philadelphia. She is president of the Iowa State Dietetic Association. **Grace M. Severance** received her B.S. degree from Washington State College and her M.S. degree from Iowa State College. She obtained her student dietitian training at the University of Minnesota Hospital. At present she is an instructor in institution management and food director of the Cooperative Residence Halls at Iowa State College.

Mary W. Northrop was noted in this JOURNAL for May 1938. Miss Northrop has been appointed national program chairman for the Annual Meeting of the American Dietetic Association to be held in Los Angeles, August 1939. **Nena D. Osterud** received the B.S. degree in home economics from the University of Washington. She was dietitian at the Northern State Hospital, Sedro-Wooley, Washington, for three years, field nutrition worker for the Washington Tuberculosis Association for three years, assistant manager at the University of Washington Commons for three years, and has held her present position as administrative dietitian at the King County Hospital for the past seven years.

Marjorie Dunlap graduated from the Foods and Nutrition Department of Iowa State College with a major in dietetics in 1936. She is a graduate of the 1936 Seattle Course for Student Dietitians. This course comprised affiliations with the hospitals mentioned by Miss Dunlap in this JOURNAL. In 1937 she was appointed dietitian at St. Luke's General Hospital, Bellingham, Washington, which position she now holds.